

# MID-PACIFIC OCEANOGRAPHY PART IX, OPERATION NORPAC

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SPECIAL SCIENTIFIC REPORT - FISHERIES NO. 168

UNITED STATES DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE



An announcement (which read as follows) was recently issued by the Bureau of Commercial Fisheries Biological Laboratory Honolulu, concerning an error in depths of reversal computed from the readings of unprotected and protected reversing thermometers:

"Recently it was discovered that the depths of reversal of the Nansen bottles as calculated at the Honolulu Biological Laboratory from temperature differences of unprotected and protected reversing thermometers, are in error. These depths, which are in excess of the correct depth, may be reduced to the proper value by the use of a correction factor, as described below.

At the time the data processing system in use at this laboratory was being established, a table of the factor  $1/(Q \times \rho_m)$  was prepared for use in computing the depths of reversal from the readings of unprotected thermometers;  $Q$  represents the pressure-constant of an unprotected thermometer, and  $\rho_m$  represents the mean density of the water column above the depth of thermometer reversal, which was taken to be 1.0303 in all cases. An error occurred in the calculation such that, instead of  $1/(Q \times \rho_m)$ , the table consisted of values of  $(1/Q) \times \rho_m$ . This error is present in all of the depth data which have been published by this laboratory under its previous name Pacific Oceanic Fishery Investigations, and under its present name Honolulu Biological Laboratory up to and including 1960. Therefore in making use of the data published by this laboratory before 1961 all depths should be corrected by dividing each by  $(\rho_m)^2$ , which is equal to 1.0615. Multiplication of all the published depths by 0.942 will give the proper value for the depth of each observation."

Subsequent analyses have shown that the error described above is present only in the data from those cruises made by vessels of the Bureau of Commercial Fisheries Biological Laboratory Honolulu after Hugh M. Smith cruise 20 (February-April 1953). Cruises for which data containing this error have been published are listed below with the appropriate publication references:

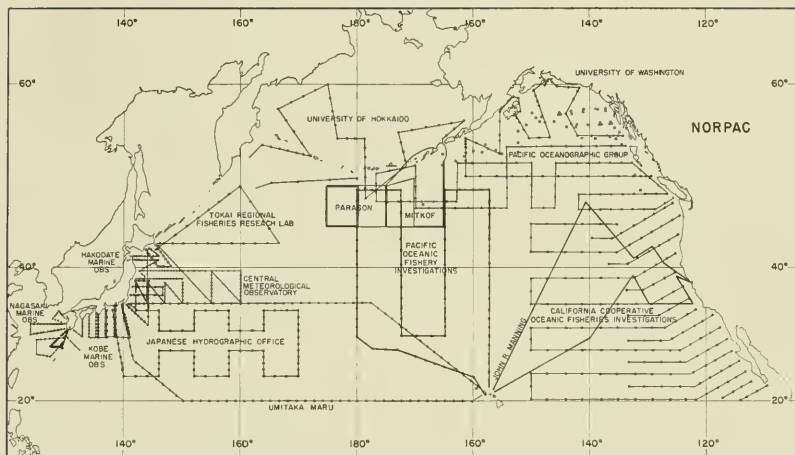
U. S. Fish and Wildlife Service  
Honolulu, T. H.

Special Scientific Report: Fisheries No. 168

WASHINGTON: JANUARY 1956



United States Department of the Interior, Douglas McKay, Secretary  
Fish and Wildlife Service, John L. Farley, Director



MID-PACIFIC OCEANOGRAPHY PART IX,  
OPERATION NORPAC

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# Mid-Pacific Oceanography Part IX

## Operation NORPAC

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#### ERRATA

#### Page

16. BT #89. Surface salinity (o/oo) should read 33.37.

BT #96. " " " " " 32.97.

27. Station 32. The group counts should read as follows:

Foraminifera	-
Radiolaria	4000
Coelenterata	2400
Chaetognatha	12,100
Annelida	-
Copepoda	250,800
Ostracoda	-
Amphipoda	1600
Euphausiacea	15,300
Decapoda	-
Pteropoda	17,700
Heteropoda	-
Tunicata	800
Fish larvae	800
Other	1600

Station 37-1. The count for Chaetognatha should read 1000 instead of 103.

28. Station 80-2. The count for Copepoda should read 198,000 instead of 44,900.

29. Station 100-2. The count for Chaetognatha should read 2800 instead of -.

36. Station 8. At observed depth 321 m., salinity should read 34.61.

48. Station 25. Casts should be numbered I and II as per note #2, p. 30.

62. Station 40. At interpolated depth 400 m., salinity should read 34.04, sigma-t should read 27.09, and delta-t should read 98.0

71. Station 52. At observed depths 863 m. and 1074 m., salinities should be interchanged. Values should read:

863 m.--salinity 34.13--sigma-t 27.11--delta-t 96.4

1074 m.--salinity 34.31--sigma-t 27.32--delta-t 76.5

90. Station 76. At interpolated depth 100 m., salinity should read 33.59, sigma-t should read 26.21, and delta-t should read 181.8.

91. Station 77. At interpolated depth 100 m., salinity should read 33.32, sigma-t should read 26.13, and delta-t should read 188.9.

ERRATA (Cont'd)

Page

92. Station 79. At observed depth 679 m., the second oxygen should be blank. At observed depth 850 m., oxygen should be .75. At observed depth 1016 m., oxygen should be .74. At interpolated depth of 200 m., delta-t should read 137.0.

## MID-PACIFIC OCEANOGRAPHY PART IX, OPERATION NORPAC

The need for a survey to provide a synoptic picture of the oceanographic and biological conditions of the entire North Pacific as a background for fisheries investigations and for effectively describing the circulation has long been recognized. It was also recognized that such a survey would require the cooperative and coordinated efforts of several oceanographic activities and their vessels. A proposal for such a cooperative venture, that finally culminated in the quasi-synoptic survey known as NORPAC, was made at the Fifth Pacific Tuna Conference in November 1954. Those present at the Conference represented agencies of Canada and the United States interested in tuna research and related oceanography. The Scripps Institution of Oceanography, designated as the coordinating agency, was instructed to enlist the aid of Japanese agencies. After considerable planning and coordination of the field programs, the vessels from the various participating agencies completed the survey in July-September 1955. Their tracks are indicated in the frontispiece.

The Pacific Oceanic Fishery Investigations (POFI) of the U. S. Fish and Wildlife Service, Honolulu, T. H., assigned one vessel, the Hugh M. Smith (HMS) to the NORPAC oceanographic survey, and one vessel, the John R. Manning (JRM), to exploratory fishing during this period. The Hugh M. Smith surveyed the area from the Hawaiian Islands to  $49^{\circ}30'N.$ , from  $157^{\circ}30'W.$  to  $180^{\circ}$ , during the period of July 15 through August 28, 1955 (fig. 1). The data collected on this cruise compose the main body of this report. The John R. Manning fished in the area northeast of the Hawaiian Islands between  $152^{\circ}30'W.$  and the west coast of the United States from  $30^{\circ}N.$  to  $47^{\circ}N.$  (Appendix, fig. 7) from July 15 through September 10, 1955. The limited oceanographic observations of the Manning, consisting of bathythermograph lowerings, surface salinities, and meteorological records, are given in tables 9 and 10 (Appendix).

NORPAC was opportunely timed in reference to the POFI albacore research program, a study financed by an allotment of funds through the Saltonstall-Kennedy Act in October 1954. This synoptic survey of the oceanographic and biological conditions of

the surrounding area as well as the particular areas under study so early in the research program should prove invaluable to the progress of these studies, for the oceanographic and biological conditions of the albacore study area can now be evaluated in reference to a framework consisting of the entire North Pacific Ocean.

### FIELD PROCEDURES

The Smith departed Pearl Harbor, T. H., on July 15, 1955; stopped at Midway Island from July 21-23 to take on water, fuel, and stores; made a bait survey of the lagoon and reef; completed her NORPAC observations, and returned to Pearl Harbor on August 28, 1955. The track and station<sup>1/</sup> positions are shown in the frontispiece and figure 1.

### Missions

#### A. Primary Missions:

##### 1. Oceanography

a. Seventy-nine oceanographic stations were occupied (fig. 1 and table 1). At 67 of the stations 13-bottle casts were made to a depth of approximately 1,200 m. At twelve of the stations deeper casts were made to the maximum depth the wire would permit; six were double casts of 9 and 13 bottles each to approximately 2,000-2,500 m. and six were 13-bottle casts to approximately 1,400-1,500 m.

All Nansen bottles carried two protected reversing thermometers. All but the upper four bottles (those at approximately 100 meters or less) carried an unprotected reversing thermometer for use in determining the sampling depth.

---

<sup>1/</sup> A station indicates a significant unit of scientific work which is separated in time and/or space from other units. Table 1 lists the observations made at each station. The following observations did not constitute a station and are tabulated separately: (1) trolling, (2) single BT casts, (3) weather observations, and (4) observations of fish, birds, and mammals.

At all stations where 13-bottle casts were used the spacing of the bottles (usually 6) above 300 m. was determined by the characteristic of the bathythermograph (BT) trace. At the 1,200-m. stations the remaining seven bottles were placed at the standard depths of 300, 400, 500, 600, 800, 1,000, and 1,200 m. At the stations where 13-bottle casts were made to depths of 1,400-1,500 meters the intervals between the seven deepest bottles were slightly increased. At two-cast stations the first cast was to 600 meters with 13 bottles, the spacing dependent upon the BT trace. The second had 9 bottles placed at approximately 800, 1,000, 1,200, 1,400, 1,600, 1,800, 2,000, 2,250, and 2,500 meters. As the depth of these casts was decreased because of the loss of wire, the intervals were decreased.

b. Salinity samples were drawn from each Nansen bottle and returned to the POFI laboratory for analysis. To preclude evaporation, each sample was stoppered with a paraffin-impregnated cork in addition to the screw cap. Additional samples were drawn at several stations at the northern end of the 180° and 165°W. transects and analyzed aboard ship to make certain that the sections extended into the Subarctic water. Additional surface salinity samples were taken at all off station BT's (last column, table 2).

c. Dissolved oxygen analyses using the Winkler method were made aboard ship on samples from each depth and from all the oceanographic stations.

d. Inorganic phosphate analyses were also made aboard ship. Subsequent analyses of the resulting data showed that the Automatic Servo-Operated Photometer was malfunctioning and the data are not useable.

e. Bathythermograph lowerings were made twice at each station and at 30-mile intervals between stations. On station the first lowering was made on arrival to determine the vertical distribution of temperature which was then used as a guide in spacing the Nansen bottles. The second was made as the cast was being tripped in order to obtain a continuous record of the vertical temperature for use with the reversing thermometer values in constructing the temperature-depth curves. The bathythermograph log sheets (Log Sheet "B") are summarized in table 2, and figures 2 to 6 are plots from the corrected BT slides.

f. The thermal element of the ship's recording thermograph failed after 8 days of operation, so a continuous record of the surface temperature was obtained only on the run from Pearl Harbor to Midway Island. In the northern part of the area, north of 40°N., where sharp changes of temperature were encountered, hourly bucket temperatures were taken in addition to the BT temperatures at 30-mile intervals.

g. No GEK current measurements were taken because of instrument failure.

h. Secchi disk observations of water transparency and color measurements (Forel scale) were made at 39 stations. The results are listed in table 1.

i. Bottom profiles were obtained over about 25 percent of the track by means of the EDO echo sounder. The EDO worked only intermittently on the run to Midway, where it was adjusted by technicians from the U. S. Naval Air Station. It was then operated continuously to about station 44 where it failed completely. The resulting data have been forwarded to the U.S.N. Hydrographic Office.

## 2. Plankton

a. Thirty-minute oblique hauls to a depth of 140 meters, employing a 1-meter net of 30XXX grit gauze, were made at 78 of the oceanographic stations. All nets were equipped with Atlas flowmeters, which were calibrated before and after the cruise.

The cruise plan also called for three-net oblique plankton hauls with basically the same type of nets as those used in the 140 m. hauls, to sample plankton from three levels: near the surface, the region of the thermocline (40-95 m.), and below the thermocline (95-440 m.). Three-net hauls were tried without success at the five daylight stations on the run to Midway and then abandoned. After Midway, the 140 m. oblique hauls were then supplemented with shallow oblique hauls, the depths of which were adjusted so that sampling was completely above the thermocline, or to 40 m. if there was no homogeneous surface layer. Fifteen samples from the shallow hauls made on the 172°30'W. transect were frozen for later analysis of fat, glycogen, and protein content.

## B. Secondary Missions:

### 1. Meteorological observations

a. Synoptic marine weather observations were made daily at 0000, 0600, 1200, and 1800 GCT. In addition, certain standard weather observations accompanied all BT lowerings.

Only one storm with winds and seas which were high enough to interfere with the survey work was encountered. It passed over the vessel at 0600 GCT on July 27, 1955, at approximately  $35^{\circ}30'N.$ ,  $179^{\circ}50'W.$  and had winds of 40-45 knots for about 3 hours, producing 10- to 12-foot seas for about 6 hours. The high wind and seas made it necessary to omit the mid-water trawl haul and delayed one hydrographic station for 4 hours.

### 2. Tuna abundance

a. The wheel watch maintained a careful lookout for tuna schools, bird flocks, and scattered birds and mammals. The sightings of birds and fish are summarized in table 3. Numerous whales (mostly sperm), porpoises, and a few fur seals were sighted. The observations are tabulated in table 4.

b. Surface trolling was carried out during daylight hours. Three lines were fished while the GEK electrodes were being towed (to station 40) and 5 lines thereafter. North of the  $65^{\circ}F.$  surface isotherm on the  $172^{\circ}30'W.$ ,  $165^{\circ}W.$ , and  $157^{\circ}30'W.$  transects the trolling speed was 7.2 knots; over the rest of the area the speed was between 9 and 10 knots. The total number of line hours at reduced speed was 217 hours and at standard speed 1,827 hours. The positions at which the catches were made, except for 1 albacore, are listed in table 5.

### 3. Miscellaneous biological collections

a. Stomachs of 7 of the 8 albacore taken by trolling were preserved and returned to the POFI laboratory.

b. Nineteen night-light stations were made at sea and one at Midway Island (see table 1 for positions).

c. Forty oblique hauls of 1 hour's duration were made with the 10-foot Isaacs-Kidd trawl (see table 1 for positions). Relatively productive hauls were made in, and to the north of, the zone of the subsurface temperature discontinuity.

d. Morphometrics were taken, and vertebrae, scales, and ovaries were saved from 7 albacore for racial and growth studies.

e. From station 37 to 41 large masses of a giant kelp, *Alaria fistulosa*, were frequently sighted. Six complete thalli including the holdfast were brought aboard from the first mass, which was sighted just before station 37 (fig. 1). The largest of the thalli was about 50 feet long, and the holdfast was about 20 inches across and weighed about 25 pounds. Several of the holdfasts were cut apart and the invertebrates removed and preserved. These included sponges, flat worms, sea anemones, annelids, starfish, brittle stars, sea urchins, sea cucumbers, sipunculoids, gastropods, and amphipods. The *Alaria* also had several epiphytic algae, which were preserved.

From station 81 to 87 another large kelp, *Macrocystis* sp., was frequently sighted. No samples were taken.

f. A bait survey was made on Sand Island of the Midway atoll. On the lagoon side about 25 buckets of iao (*Atherinidae*), 10 buckets of aholehole (*Kuhlia sandvicensis*), and 2 buckets of mullet (*Mugilidae*) were sighted. On the ocean side 32 buckets of aholehole and 5 of mullet were sighted.

### 4. Miscellaneous observations

a. At every third oceanographic station a 500-ml. sample (total, 26) was taken from a depth of 200 m. for radioactivity analysis to be made by Scripps Institution of Oceanography. At 12 of these stations a 10-liter integrated sample was taken from the mixed surface layer for radioactivity analysis as requested by Dr. Yasuo Miyake, Central Meteorological Observatory, Tokyo. Special Nansen bottle casts of 11-12 bottles spaced at intervals of 3-4 meters were made to obtain these samples (table 1).

b. At 15 stations samples (total, 126) were taken at alternate depths for deuterium analysis to be made by Woods Hole Oceanographic Institution (Dr. Alfred C. Redfield) (table 1).

c. At 7 stations along  $180^{\circ}$ , 1-liter water samples were taken from the surface and 150 m., and aliquots of at least 5 ml. were taken from the shallow plankton tows for the Medical and Biological Division of the U. S.

Atomic Energy Commission (Dr. Robert J. Buettner, U.C.L.A.-A.E.C. project) (table 1).

d. At 31 of the oceanographic stations one to seven 200-ml. water samples (total, 86) were taken from the upper 125 meters for phytoplankton studies at Scripps Institution of Oceanography (Mr. Robert N. Holmes) (table 1).

## RECORDS

The following records were kept and are on file at POFI, except as otherwise noted in parentheses after the item:

Original oceanographic data "Log Sheet A"  
Bathymograph log sheet "B" (duplicates at Scripps Institution of Oceanography)  
Field plots of BT temperatures  
Chemical data sheets  
BT slides (Scripps Institution of Oceanography)  
Thermograph records  
Track charts  
Deck log  
Occurrence of tuna schools and bird flocks log  
Plankton log  
Flowmeter and plankton sampler calibration log  
Surface trolling log  
Scientist's log  
U.S.W.B. Form 1210F (U.S. Weather Records Center, Asheville, N.C.)  
EDO depth recorder charts (U.S.N. Hydrographic Office)  
Short form tuna morphometric sheets  
Thermometer arrangement forms  
Night-light fishing log  
Trawling log  
Barograph records (U.S.W.B.)

## PERSONNEL

Albert L. Tester - Director, POFI  
Garth I. Murphy - Assistant Director; Chief, Research and Development, POFI  
Albert K. Akana - Marine Operations Superintendent

### Field Parties

Hugh M. Smith

B. Collinson, Master  
J. W. McGary, Oceanographer - Field Party Chief  
F. Edvalson, Hydrographic Engineer (USNHO)

E. C. Jones, Fishery Research Biologist  
E. D. Stroup, Physical Science Aid  
J. W. Van Landingham, Physical Science Aid  
B. Wyatt, Fishery Aid

John R. Manning

F. Barnett, Master  
T. Otsu, Fishery Research Biologist - Field Party Chief  
W. Matsumoto, Fishery Research Biologist

### Preparation of Data

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M. L. Godfrey, Physical Science Aid  
E. D. Stroup, Physical Science Aid  
E. Mendiola, Statistical Clerk  
T. Hida, Fishery Aid

## LABORATORY METHODS AND TECHNIQUES

### A. Oceanographic data

The analyses of samples drawn from the Nansen bottles for dissolved oxygen and inorganic phosphate were made aboard ship. Oxygen concentration was determined by Winkler's method. Duplicate determinations were made for each sample; precision was in the neighborhood of 0.5 percent. Phosphate phosphorus concentration was measured with the use of the Automatic Servo-Operated Photometer, as described by Wooster and Rakestraw (1951).

Concentrations of salinity in the samples returned to the POFI laboratory were determined by a new modification of Fajan's adsorption indicator method developed at this laboratory, and adapted to Knudsen's techniques for sea water. Accuracy of the method as based on standard (Copenhagen) sea water is 0.1 percent or greater; routine precision is about 0.03 percent.

The duplicate readings of the protected and unprotected reversing thermometers made aboard ship were reduced by graphical methods to true water temperature, with an accuracy of  $\pm 0.02^{\circ}\text{C.}$ , and the thermometric depth is combined graphically with the wire length to give the accepted depth of reversal of each bottle. These methods are described by La Fond (1951).



The observed data were plotted on a graph developed by Klein<sup>2/</sup> on which the coordinates are depth (or salinity, oxygen, phosphate) vs. thermocline anomaly (the anomaly of specific volume neglecting pressure terms). Isotherms appear on the graph as slanting straight lines. The observed chemical concentrations are each plotted against the temperature-depth curve.

The temperature-depth curve was drawn using the bathythermograph curve obtained on station to aid in forming the upper portion, the curve following the shape of the BT trace but passing through the points observed with reversing thermometers. The other curves (temperature-salinity, and -oxygen) were drawn making the station-to-station changes as regular as allowed by the observed points. Values obviously in error became evident during this stage of the processing and were discarded.

Temperatures at standard depths were read from the T-depth curve, and the respective values were read and tabulated from the other curves at these temperatures. Computation of geopotential anomaly (with pressure terms neglected) was done directly from the station graphs. If the average values of thermocline anomaly over suitable small intervals of depth (pressure) times the pressure interval in db are summed upward from some reference level, the result is the geopotential anomaly over the reference depth. The depth intervals used are 100 m. in the deeper layers and 10 m. in the thermocline and surface layer; this simplifies the multiplication by the pressure interval to a mere change in decimal place, and has the advantage of following the observed data very closely in the region of the thermocline. In practice, the value of thermocline anomaly was read from the T-S curve at the temperature of the midpoint of the desired depth interval on the T-depth curve.

#### B. Plankton

In the laboratory the zooplankton samples were treated as follows:

1. All organisms above 5 cm. in longest dimension plus non-food organisms (King and Hida 1954) 2 to 5 cm. in longest dimension were removed from the sample and were not included in the volumes or group counts.

2. The wet drained volume of the remainder of the sample was determined by water displacement following the method of King and Demond

<sup>2/</sup> Klein, Hans. MS. A new method for processing oceanographic data. Scripps Institution of Oceanography.

(1953), except that in this case the entire sample was measured. Volumes in cc/1000m<sup>3</sup> (table 6) were estimated from the flowmeter records following the method of King and Demond (1953).

3. An aliquot of the sample (usually 1/4) was placed in a 15 x 20 cm. counting chamber and distributed as evenly as possible.

All organisms within each of 10 randomly selected square centimeters were identified down to "group" (phylum to order) and counted. The estimated number of each "group" in the total sample was obtained by multiplying the above counts by  $10 \times \frac{1}{15 \times 20}$  or 30 times the aliquot denominator. The estimated numbers of organisms per 1,000 cubic meters of water strained was obtained by dividing the above total sample estimates by the cubic meters of water strained expressed in thousands. The resulting values are tabulated in table 7.

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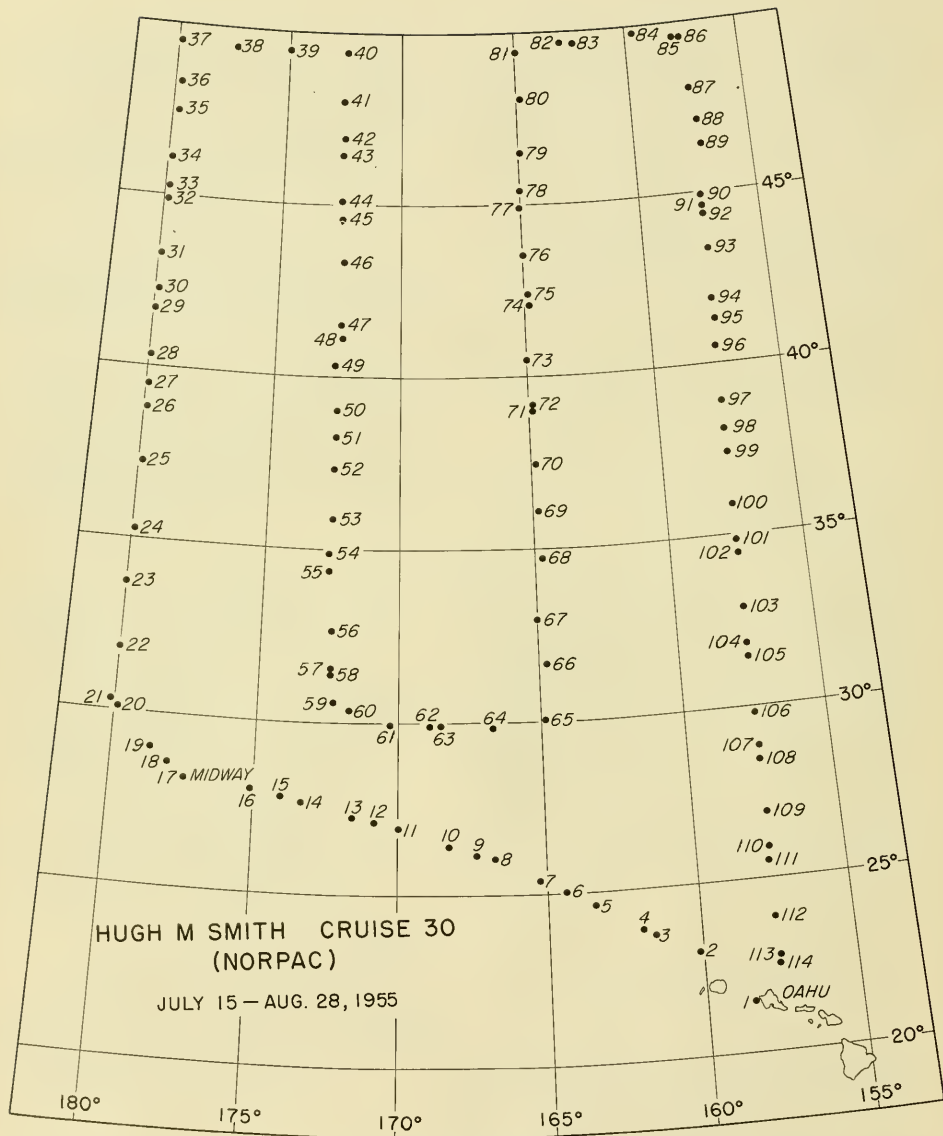


Fig. 1. --Track chart, HMS Cruise 30 (NORPAC). See table 1 for description of stations (oceanographic, zooplankton or midwater trawl).



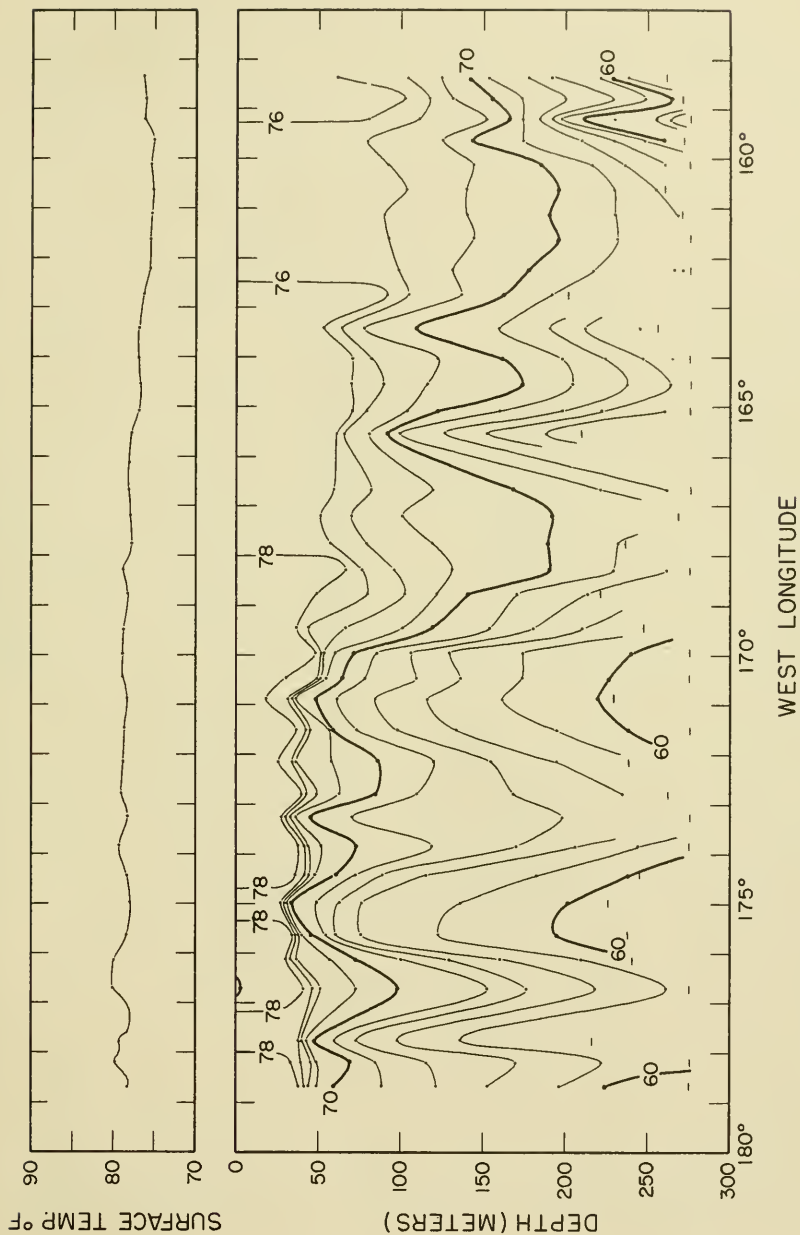
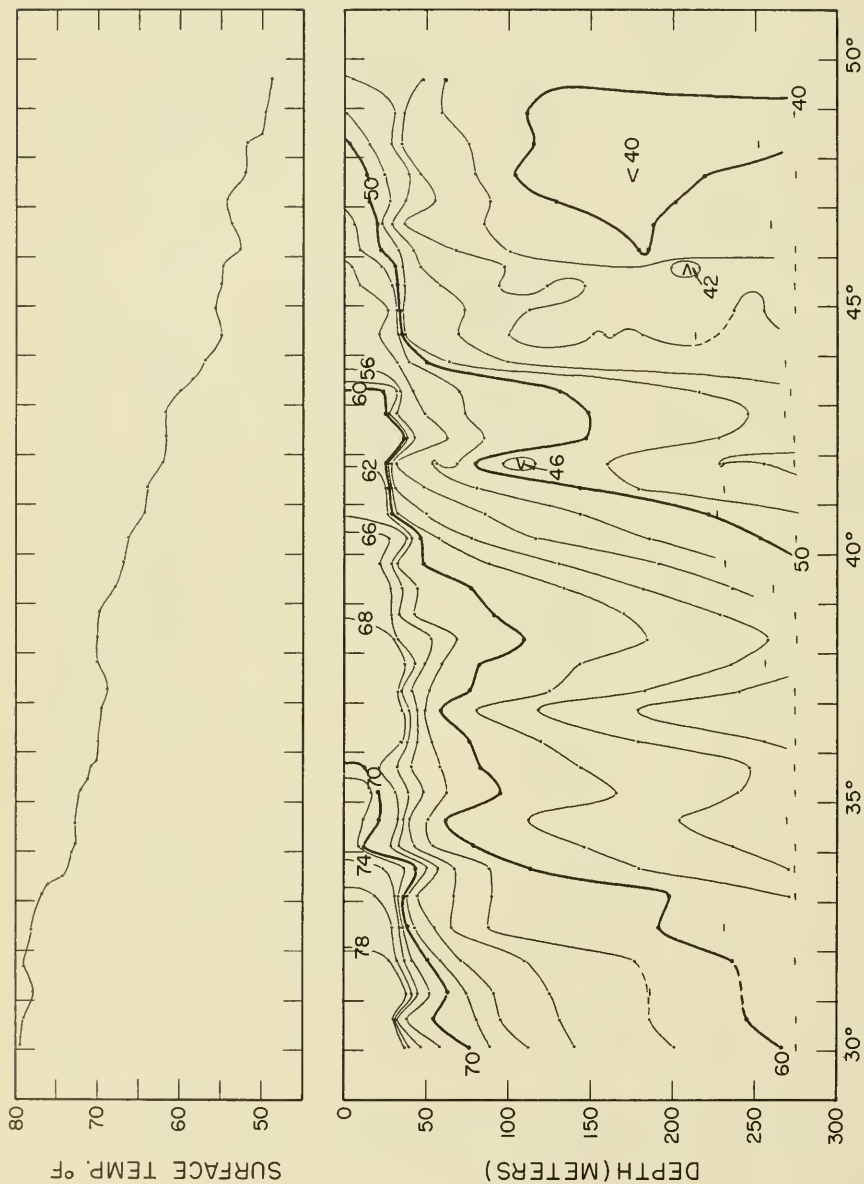
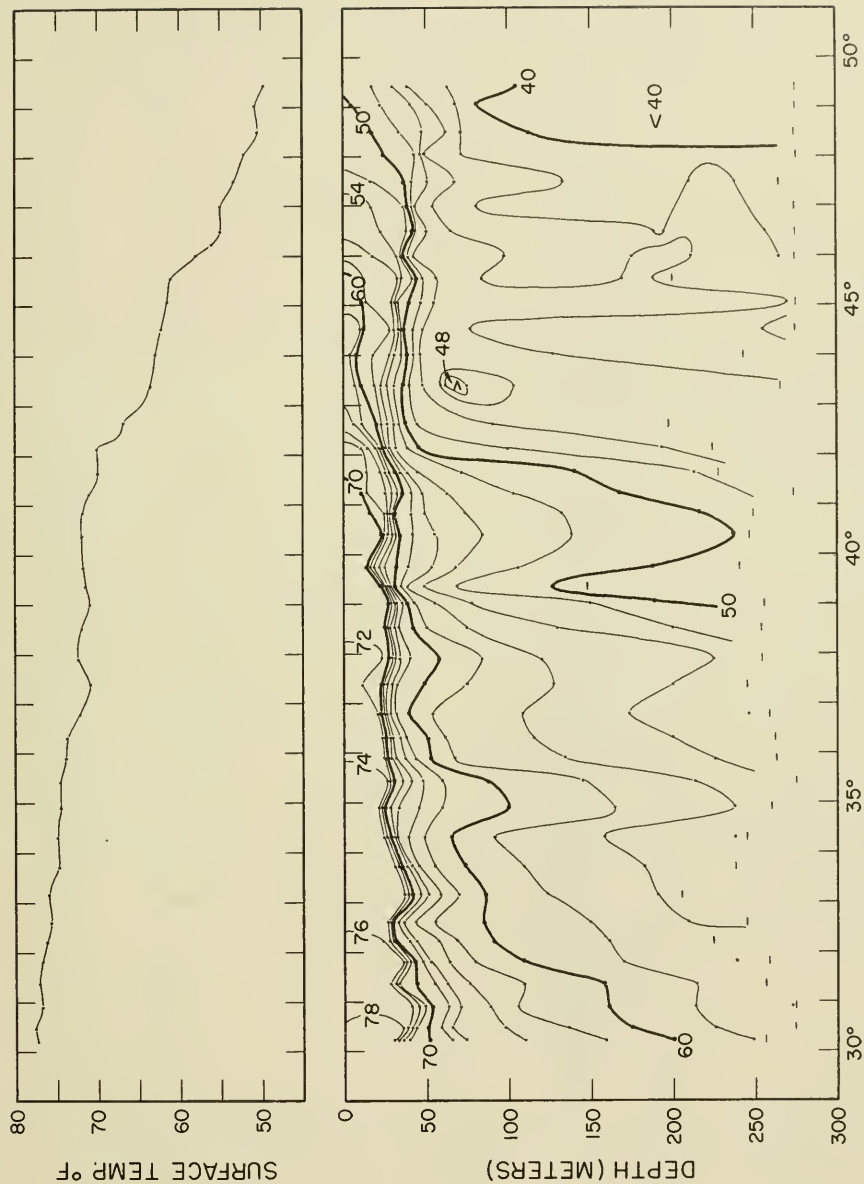


Fig. 2. --Surface bucket temperatures (upper panel) and temperature-depth section from BT observations (lower panel). Honolulu to Midway; HMS Cruise 30 (NORPAC), July-August 1955.



### NORTH LATITUDE

Fig. 3. --Surface bucket temperatures (upper panel) and temperature-depth section from BT observations (lower panel), 180th meridian; HMS Cruise 30 (NORPAC), July-August 1955.



NORTH LATITUDE

Fig. 4. --Surface bucket temperatures (upper panel) and temperature-depth section from BT observations (lower panel), 172°W, longitude; HMS Cruise 30 (NORPAC), July-August 1955.

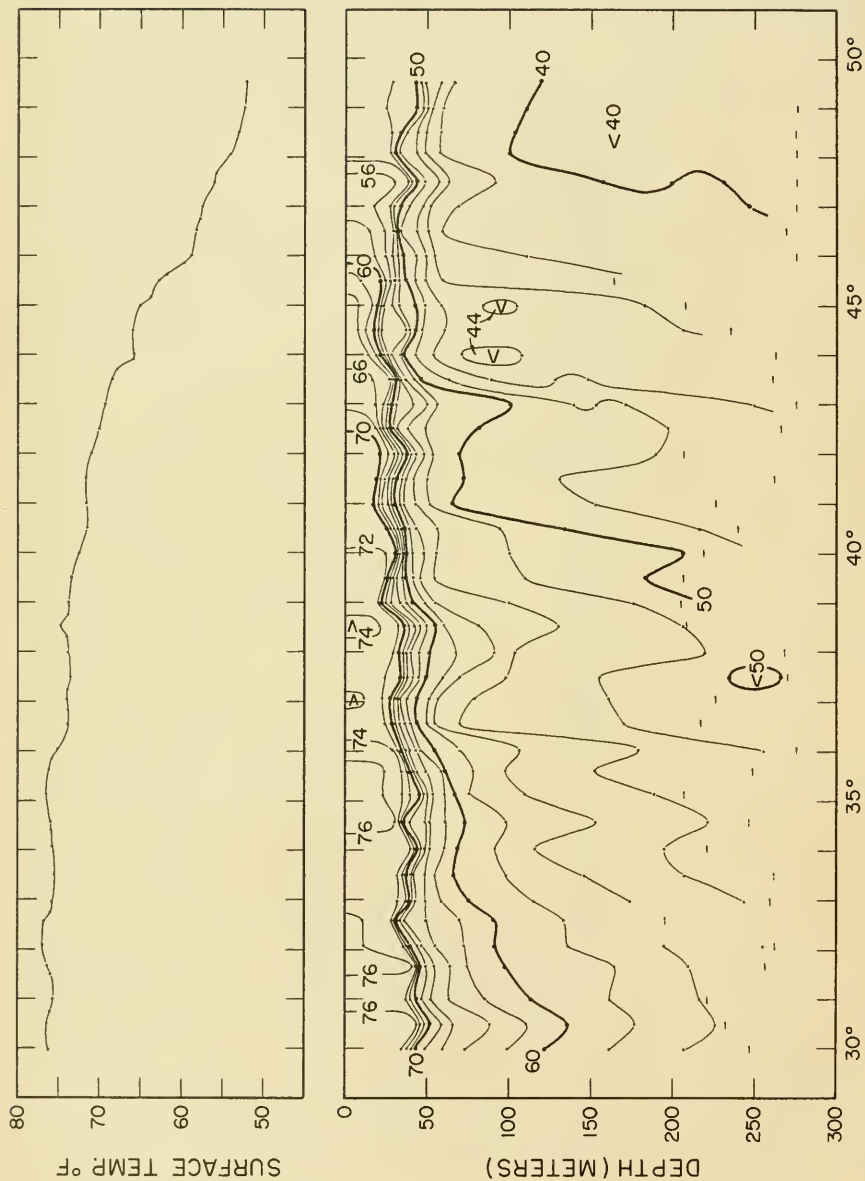


Fig. 5. --Surface bucket temperatures (upper panel) and temperature-depth curve from BT observations (lower panel). 165°W. longitude; HMS Cruise 30 (NORPAC), July-August 1955.

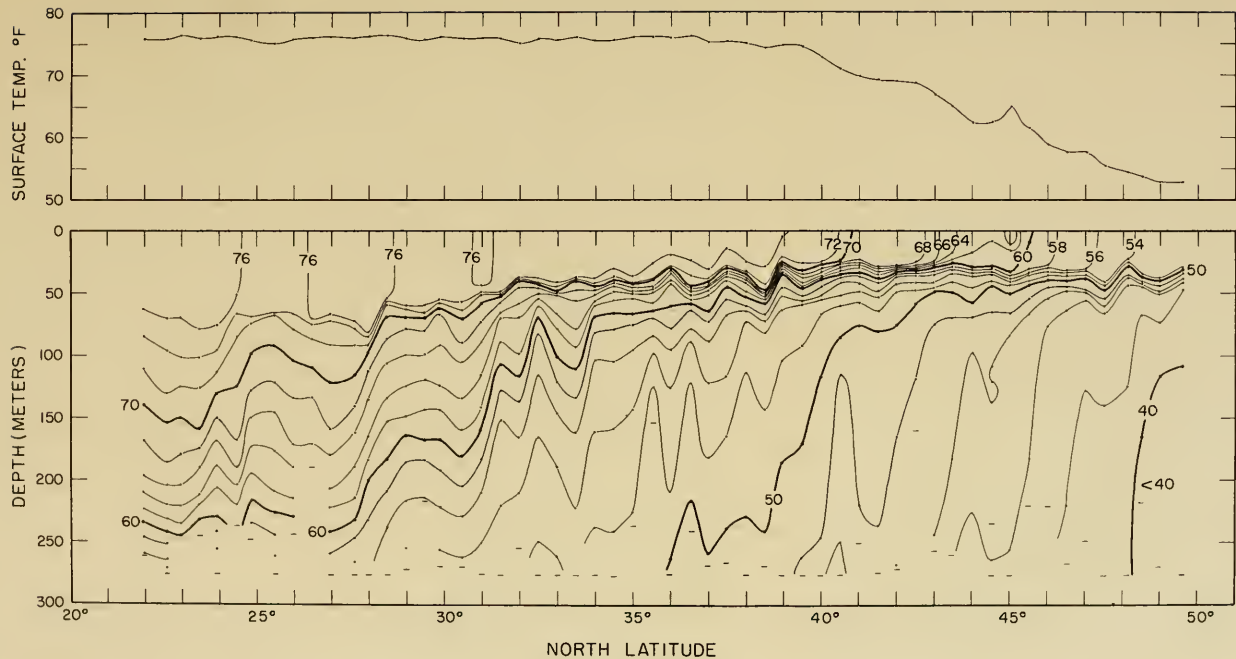


Fig. 6. --Surface bucket temperatures (upper panel) and temperature-depth section from BT observations (lower panel). 157°W. longitude; HMS Cruise 30 (NORPAC), July-August 1955.

Table 1.--Observations at NORFAC stations, HMS Cr. 30

AEC RS	- Atomic Energy Comm. radioactivity sample	SIO PP	- Number of Scripps Inst. Ocean. phytoplankton samples
J RS	- Japanese radioactivity sample	SIO RS	- Scripps Inst. Ocean. radio-activity sample
MWT	- 200-meter midwater trawl	SD	- Secchi disc - depth in meters
NL	- Night light	WC	- Forel scale water color
P	- 140-meter plankton tow	WHOI DEUT	- Number of Woods Hole Ocean. Inst. Deuterium samples
PS	- Shallow plankton tow - depth in meters	X	- Observation taken

Sta. No.	Time GCT	Date 1955	Lat.	Long.	Hydro. cast(m)	P	PS	MWT	NL	SD	WC	SIO PP	SIO RS	J RS	AEC RS	WHOI DEUT
1	0521	7/16	21°30'N	158°23'W	1238	-	-	-	-	-	-	-	-	-	-	-
2	2114	7/16	23°06'N	160°08'W	1156	X	-	-	-	23	4	-	-	-	-	-
3	0705	7/17	23°38'N	161°20'W	-	-	-	X	-	-	-	-	-	-	-	-
4	1131	7/17	23°46'N	161°41'W	1223	X	-	-	-	-	-	-	X	-	-	7
5	0000	7/18	24°32'N	163°23'W	1341	X	-	-	-	22	4	-	-	-	-	-
6	0838	7/18	25°08'N	164°33'W	-	-	-	X	-	-	-	-	-	-	-	-
7	1524	7/18	25°20'N	165°10'W	1165	X	-	-	-	-	-	5	-	-	-	-
8	0411	7/19	26°00'N	166°40'W	1294	X	-	-	-	20	2-3	-	X	X	-	-
9	0835	7/19	26°11'N	167°17'W	-	-	-	X	-	-	-	-	-	-	-	-
10	1555	7/19	26°21'N	168°14'W	1368	X	-	-	X	-	-	-	-	-	-	-
11	0352	7/20	26°55'N	169°58'W	896	X	-	-	-	22	1-2	-	-	-	-	-
12	0636	7/20	27°11'N	170°54'W	-	-	-	X	-	-	-	-	-	-	-	-
13	1558	7/20	27°13'N	171°30'W	742	X	-	-	X	-	-	4	X	-	-	-
14	0325	7/21	27°38'N	173°15'W	1251	X	-	-	-	-	-	-	-	-	-	-
15	0841	7/21	27°27'N	174°00'W	-	-	-	X	-	-	-	-	-	-	-	-
16	1528	7/21	27°57'N	175°04'W	1365	X	-	-	-	-	-	1	-	-	-	-
17	0700	7/22	(Fuel Pier Midway)	-	-	-	-	-	X	-	-	-	-	-	-	-
18	0925	7/24	27°37'N	177°58'W	-	-	-	X	-	-	-	-	-	-	-	-
19	1612	7/24	29°02'N	178°40'W	1258	X	-	-	-	-	-	-	X	-	-	-
20	0702	7/25	30°06'N	179°54'E	2755	X	43	-	-	28	2	3	-	-	X	12
21	0935	7/25	30°17'N	179°53'E	-	-	-	X	-	-	-	-	-	-	-	-
22	2248	7/25	31°49'N	179°58'E	1267	X	141	-	-	32	1	-	-	-	-	-
23	1144	7/26	33°41'N	180°00'	1277	X	59	X	X	-	-	1	X	X	X	-
24	0120	7/27	35°16'N	179°55'W	1343	X	44	-	-	-	-	-	-	-	-	-
25	1550	7/27	37°15'N	179°50'W	1133	X	48	-	-	21	3	-	-	-	X	-
26	0425	7/28	38°48'N	179°52'W	1241	X	-	-	-	20	2-3	-	X	-	-	-
27	0923	7/28	39°31'N	179°54'W	-	-	-	X	-	-	-	-	-	-	-	-
28	1840	7/28	40°19'N	179°54'W	2314	X	-	-	-	-	-	-	-	-	X	12
29	0611	7/29	41°50'N	179°54'W	1087	X	40	-	-	18	1	-	X	X	-	-
30	0939	7/29	42°21'N	179°52'W	-	-	-	X	-	-	-	-	-	-	-	-
31	1845	7/29	43°17'N	179°56'W	1370	X	55	-	-	-	-	-	-	-	X	-
32	0613	7/30	44°56'N	179°49'W	1256	X	-	-	-	12	4-5	4	-	-	-	-
33	0934	7/30	45°22'N	179°50'W	-	-	-	X	-	-	-	-	-	-	-	-
34	1753	7/30	46°08'N	179°55'W	1245	X	71	-	-	10	5	-	-	-	X	-
35	0511	7/31	47°41'N	179°39'W	1299	X	-	-	-	10	5	1	X	-	-	7
36	0949	7/31	48°20'N	179°47'W	-	-	-	X	-	-	-	-	-	-	-	-
37	2200	7/31	49°34'N	179°58'W	2302	X	45	-	-	-	-	-	-	-	X	-
38	1148	8/1	49°30'N	177°19'W	1299	X	-	X	X	-	-	5	X	-	-	-
39	2322	8/1	49°30'N	175°04'W	1246	X	-	-	-	10	4	-	-	-	-	-
40	1146	8/2	49°25'N	172°35'W	2296	X	49	X	-	-	-	1	-	-	-	-
41	0155	8/3	48°03'N	172°34'W	1184	X	47	-	-	14	4	-	X	X	-	-
42	0932	8/3	46°57'N	172°31'W	-	-	-	X	-	-	-	-	-	-	-	-
43	1436	8/3	46°31'N	172°34'W	900	X	48	-	-	-	-	1	-	-	-	7
44	0457	8/4	45°05'N	172°30'W	1345	X	51	-	-	20	2	-	-	-	-	-
45	0936	8/4	44°37'N	172°27'W	-	-	-	X	X	-	-	-	-	-	-	-
46	1712	8/4	43°20'N	172°19'W	937	X	11	-	-	-	-	1	X	-	-	-
47	0523	8/5	41°39'N	172°16'W	1277	X	21	-	-	21	2	-	-	-	-	-
48	0900	8/5	41°08'N	172°22'W	-	-	-	X	X	-	-	-	-	-	-	-
49	1713	8/5	40°23'N	172°33'W	2405	X	20	-	X	-	-	7	-	-	-	13
50	0350	8/6	39°02'N	172°30'W	1379	X	30	-	-	25	2	-	X	X	-	-

Table 1.—Observations at NORPAC stations, HMS Cr. 30 (cont'd)

Sta. No.	Time GCT	Date 1955	Lat.	Long.	Hydro. cast(m)	P	PS	MWT	NL	SD	WC	SIO PP	SIO RS	J RS	AEC RS	WHOI DEUT
51	0900	8/6	38°17'N	172°30'W	-	-	-	X	-	-	-	-	-	-	-	-
52	1613	8/6	37°23'N	172°29'W	1277	X	46	-	-	-	-	1	-	-	-	-
53	0223	8/7	35°55'N	172°31'W	1277	X	31	-	-	36	1	Water was clear.				
54	0905	8/7	34°53'N	172°36'W	-	-	-	X	-	-	-	-	-	-	-	-
55	1428	8/7	34°20'N	172°35'W	1178	X	12	-	X	-	-	5	X	-	-	-
56	0121	8/8	32°36'N	172°27'W	1225	X	31	-	-	29	2	-	-	-	-	-
57	0909	8/8	31°31'N	172°25'W	-	-	-	X	-	-	-	-	-	-	-	-
58	1213	8/8	31°22'N	172°25'W	953	X	37	-	-	-	-	-	-	-	-	-
59	0112	8/9	30°14'N	172°43'W	1598	X	30	-	-	40	1	-	X	X	-	13
60	0904	8/9	30°08'N	171°48'W	-	-	-	X	-	-	-	-	-	-	-	-
61	1440	8/9	29°57'N	170°40'W	1354	X	33	-	-	-	-	-	-	-	-	-
62	0524	8/10	29°53'N	168°50'W	1376	X	21	-	-	-	-	5	-	-	-	-
63	0801	8/10	29°54'N	168°32'W	-	-	-	X	-	-	-	-	-	-	-	-
64	2001	8/10	29°50'N	166°45'W	1098	X	40	-	-	35	1-2	-	X	-	-	-
65	1027	8/11	29°59'N	164°49'W	1552	X	30	X	X	-	-	1	-	-	-	7
66	2225	8/11	31°36'N	164°44'W	1299	X	41	-	-	35	1	-	-	-	-	-
67	1056	8/12	32°57'N	164°58'W	1379	X	33	X	X	-	-	5	X	X	-	-
68	2217	8/12	34°42'N	164°40'W	1237	X	34	-	-	35	2-3	-	-	-	-	-
69	0947	8/13	36°05'N	164°48'W	1250	X	30	X	X	-	-	1	-	-	-	-
70	2025	8/13	37°30'N	164°48'W	1334	X	33	-	-	30	3	-	X	-	-	-
71	0648	8/14	38°59'N	164°50'W	1257	X	17	-	-	-	-	1	-	-	-	-
72	0800	8/14	39°08'N	164°55'W	-	-	-	X	-	-	-	-	-	-	-	-
73	1852	8/14	40°28'N	165°00'W	1631	X	20	-	-	22	3-4	-	-	-	-	7
74	0526	8/15	42°03'N	164°52'W	1291	X	13	-	-	-	-	-	X	X	-	-
75	0801	8/15	42°22'N	164°55'W	-	-	-	X	-	-	-	-	-	-	-	-
76	1735	8/15	43°29'N	165°02'W	1357	X	20	-	-	31	3	5	-	-	-	-
77	0449	8/16	44°57'N	165°01'W	1368	X	10	-	-	-	-	1	-	-	-	7
78	0805	8/16	45°23'N	164°59'W	-	-	-	X	-	-	-	-	-	-	-	-
79	1844	8/16	46°29'N	164°56'W	1016	X	15	-	-	19	4	-	X	-	-	-
80	1043	8/17	48°07'N	164°55'W	1261	X	15	X	X	-	-	5	-	-	-	7
81	2257	8/17	49°29'N	165°00'W	1435	X	25	-	-	21	4	-	-	-	-	-
82	0805	8/18	49°37'N	162°58'W	-	-	-	X	-	-	-	-	-	-	-	-
83	1156	8/18	49°42'N	162°25'W	1374	X	31	-	X	-	-	1	X	X	-	-
84	0008	8/19	49°48'N	159°40'W	1363	X	33	-	-	10	5-6	-	-	-	-	-
85	0800	8/19	49°34'N	157°55'W	-	-	-	X	-	-	-	-	-	-	-	-
86	1154	8/19	49°35'N	157°22'W	1500	X	-	-	-	-	-	1	-	-	-	-
87	0017	8/20	48°04'N	157°24'W	1258	X	26	-	-	15	4-5	-	X	-	-	-
88	0802	8/20	47°09'N	157°14'W	-	-	-	X	-	-	-	-	-	-	-	-
89	1351	8/20	46°28'N	157°06'W	1383	X	23	-	X	-	-	1	-	-	-	7
90	0446	8/21	44°57'N	157°26'W	1300	X	29	-	-	27	3	-	-	-	-	-
91	0724	8/21	44°37'N	157°25'W	-	-	-	X	-	-	-	-	-	-	-	-
92	0930	8/21	44°24'N	157°25'W	-	-	-	-	X	-	-	-	-	-	-	-
93	1706	8/21	43°23'N	157°24'W	1296	X	22	-	-	29	2	1	X	-	-	-
94	0258	8/22	41°56'N	157°22'W	1276	X	27	-	-	25	2-3	-	-	-	-	-
95	0734	8/22	41°23'N	157°21'W	-	-	-	X	-	-	-	-	-	-	-	-
96	1437	8/22	40°27'N	157°31'W	1502	X	25	-	X	-	-	-	-	-	-	7
97	0202	8/23	38°57'N	157°30'W	1300	X	34	-	-	33	2	6	X	X	-	-
98	0737	8/23	38°07'N	157°30'W	-	-	-	X	-	-	-	-	-	-	-	-
99	1356	8/23	37°26'N	157°30'W	1287	X	20	-	X	-	-	-	-	-	-	-
100	0030	8/24	35°56'N	157°30'W	1295	X	30	-	-	40	1-2	1	-	-	-	-



Table 1.--Observations at NORPAC stations, HMS Cr. 30 (cont'd)

Sta. No.	Time GCT	Date 1955	Lat.	Long.	Hydro. cast (m)	P	PS	MWT	NL	SD	WC	SIO PP	SIO RS	J RS	AEC RS	WHOI DEUT
101	0730	8/24	34°54'N	157°30'W	-	-	-	X	-	-	-	-	-	-	-	-
102	1207	8/24	34°28'N	157°30'W	1361	X	33	-	X	-	-	-	X	-	-	-
103	2321	8/24	32°56'N	157°29'W	1274	X	40	-	-	23 2-3	6	-	-	-	-	7
104	0740	8/25	31°53'N	157°30'W	-	-	-	X	-	(Sample ruined)						
105	1233	8/25	31°28'N	157°30'W	1370	X	78	-	X	-	-	-	-	-	-	-
106	0015	8/26	29°51'N	157°30'W	1382	X	59	-	-	35 2	1	X	X	-	-	-
107	0731	8/26	28°53'N	157°30'W	-	-	-	X	-	-	-	-	-	-	-	-
108	1241	8/26	28°27'N	157°31'W	1266	X	85	-	-	-	4	-	-	-	-	-
109	2343	8/26	26°58'N	157°27'W	1269	X	52	-	-	29 2	-	-	-	-	-	-
110	0705	8/27	25°53'N	157°30'W	-	-	-	X	-	-	-	-	-	-	-	-
111	1202	8/27	25°30'N	157°33'W	1246	X	-	-	-	-	-	-	X	X	-	-
112	2327	8/27	23°54'N	157°32'W	1337	X	49	-	-	37 2-3	-	-	-	-	-	-
113	0706	8/28	22°48'N	157°32'W	-	-	-	X	-	-	-	-	-	-	-	-
114	1055	8/28	22°30'N	157°36'W	626	X	40	-	-	-	-	-	-	-	-	6

Table 2.--Summary of observations at bathythermograph lowerings, HMS Cr. 30. (Underlined serial numbers indicate BT's taken at oceanographic station) (For coded values see H. O. Pub. 606-C)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Baro- meter mb.	Wea- ther	Clouds		Visi- bility	Sea	Surf. sal. ‰
						Dir. °T.	Force kt.	Dry bulb °F.	Wet bulb °F.			Type	Cover			
1	0450	7/16	21°30'N	158°23'W	76.2	030	20	76.5	71.8	1019.4	02	8	1	9	1	-
2	0930	7/16	21°52'N	158°47'W	76.0	080	25	75.1	71.0	1019.5	02	X	X	9	2	35.05
3	1305	7/16	22°14'N	159°12'W	76.1	X	X	74.2	69.6	1018.4	02	X	X	9	3	34.87
4	1635	7/16	22°37'N	159°39'W	75.0	085	20	74.7	70.2	1018.9	02	0,4,8	6	9	3	34.88
5	1945	7/16	23°05'N	160°06'W	75.4	085	20	73.1	69.7	1020.4	03	5,6,8	7	8	3	-
6	2110	7/16	23°06'N	160°08'W	75.9	090	15	75.0	71.0	1020.8	01	8	2	9	3	34.74
7	0205	7/17	23°18'N	160°36'W	75.1	090	16	75.3	70.7	1018.8	02	8	2	9	3	35.21
8	0520	7/17	23°31'N	161°06'W	75.3	090	19	74.1	71.5	1018.8	15	5,6,8	3	9	3	35.08
9	1010	7/17	23°47'N	161°37'W	75.3	090	18	75.1	70.2	1019.6	02	X	X	9	3	-
10	1130	7/17	23°46'N	161°41'W	75.2	090	19	75.2	70.2	1019.4	02	X	X	9	4	35.16
11	1520	7/17	24°01'N	162°15'W	75.5	090	19	75.0	71.9	1019.3	25	8	3	9	2	35.01
12	1825	7/17	24°12'N	162°45'W	76.1	080	17	75.0	72.1	1020.5	14	8	6	9	2	35.08
13	2235	7/17	24°34'N	163°25'W	76.8	080	20	77.0	71.7	1020.6	01	8	3	9	3	-
14	2358	7/17	24°32'N	163°23'W	77.9	080	20	76.1	71.0	1020.5	02	8,2	2	9	3	35.35
15	0600	7/18	24°51'N	164°01'W	76.9	060	18	75.6	71.3	1020.5	02	8,2	2	7	2	35.12
16	1000	7/18	25°08'N	164°33'W	76.6	080	19	76.1	70.9	1021.4	02	X	X	X	2	35.01
17	1410	7/18	25°20'N	165°05'W	76.6	105	13	74.1	70.7	1021.5	65	X	X	3	2	-
18	1520	7/18	25°20'N	165°10'W	77.7	100	13	75.0	71.8	1020.4	64	8,2	3	6	2	35.26
19	1905	7/18	25°30'N	165°33'W	77.7	085	14	79.2	74.5	1021.9	02	9	6	9	2	35.43
20	2244	7/18	25°46'N	166°07'W	77.9	080	12	81.5	75.0	1021.3	02	9	4	7	2	35.19
21	0235	7/19	26°03'N	166°42'W	78.2	090	12	77.0	71.4	1019.8	02	8	2	9	2	-
22	0408	7/19	26°00'N	166°40'W	78.0	090	14	77.5	71.8	1020.0	02	6,8	2	9	2	35.28
23	0800	7/19	26°07'N	167°12'W	77.9	100	17	76.1	70.2	1021.5	02	X	X	9	2	35.28
24	1115	7/19	26°16'N	167°45'W	77.7	095	14	76.1	72.0	1021.0	02	X	X	9	2	35.30
25	1445	7/19	26°24'N	168°16'W	78.9	100	16	76.2	70.9	1020.1	02	8	1	9	2	-
26	1550	7/19	26°21'N	168°14'W	77.9	100	16	76.2	71.3	1020.2	02	8	1	9	2	35.26
27	1945	7/19	26°32'N	168°46'W	78.2	095	14	82.0	74.0	1021.6	02	8	1	9	2	35.34
28	2310	7/19	26°47'N	169°29'W	78.7	110	14	84.1	73.5	1021.6	02	8	1	9	2	35.30
29	0245	7/20	26°57'N	169°58'W	78.7	090	14	78.0	71.0	1020.2	02	8	2	9	2	-
30	0345	7/20	26°55'N	169°58'W	79.0	090	14	77.5	70.0	1020.2	02	8	2	9	2	35.43



Table 2.—Summary of observations at bathythermograph lowerings, HMS Cr. 30. (Underlined serial numbers indicate BT's taken at oceanographic station) (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Force kt.	Dry bulb °F.	Wet bulb °F.			Type	Cover			
31	0720	7/20	27°10'N	170°28'W	78.1	090	14	77.1	70.3	1021.3	02	X	X	9	2	35.41
32	1045	7/20	27°12'N	170°54'W	78.2	105	19	76.5	70.7	1021.4	02	X	X	9	2	35.44
33	1345	7/20	27°15'N	171°29'W	78.5	110	12	78.4	75.2	1020.5	02	X	1	9	1	-
34	1500	7/20	27°13'N	171°30'W	78.6	110	10	76.7	71.9	1020.5	02	X	1	9	1	-
35	1555	7/20	27°13'N	171°30'W	76.2	110	10	76.8	71.3	1020.5	02	8	1	9	1	35.32
36	2000	7/20	27°22'N	172°09'W	78.7	X	X	82.1	74.5	1021.4	02	8, 6	5	9	1	35.46
37	2305	7/20	27°31'N	172°48'W	78.8	105	10	83.8	75.0	1023.2	02	8, 6, 2	6	9	1	35.43
38	0220	7/21	27°38'N	173°14'W	78.4	110	10	78.0	71.6	1020.5	03	2, 8, 5	8	8	1	-
39	0320	7/21	27°38'N	173°15'W	78.1	110	10	77.1	72.2	1020.5	14	2, 8, 5	8	8	1	35.41
40	0730	7/21	27°43'N	173°50'W	79.1	110	10	77.3	71.0	1021.8	01	X	5	8	1	35.53
41	1100	7/21	27°51'N	174°25'W	78.2	110	10	78.0	71.5	1021.7	02	X	X	8	1	35.44
42	1420	7/21	28°02'N	174°59'W	77.9	110	15	76.8	71.4	1020.6	02	X	X	9	1	-
43	1525	7/21	27°57'N	175°04'W	77.7	110	12	76.9	72.2	1021.2	02	X	X	9	1	34.97
44	2000	7/21	28°03'N	175°37'W	78.2	110	9	79.1	73.3	1022.0	02	2, 8	1	9	1	35.35
45	2300	7/21	28°11'N	176°08'W	79.7	110	9	78.4	72.5	1022.1	03	2, 8, 4	7	9	1	35.59
46	0200	7/22	28°13'N	176°42'W	80.0	100	9	81.0	73.5	1021.2	02	2, 8	7	8	1	35.53
47	0745	7/24	28°28'N	177°45'W	79.2	X	X	77.9	75.0	1020.8	X	X	X	X	1	35.72
48	1200	7/24	28°47'N	178°11'W	79.7	130	9	78.1	73.5	1020.3	25	X	X	8	1	35.54
49	1500	7/24	29°06'N	178°37'W	78.9	160	17	76.5	73.1	1020.1	00	X	X	X	1	-
50	1608	7/24	29°02'N	178°40'W	78.2	160	17	75.2	72.0	1019.6	02	X	6	9	1	35.17
51	2010	7/24	29°26'N	179°05'W	77.9	165	16	70.5	70.0	1020.8	21	X	9	3	1	-
52	2300	7/24	29°45'N	179°30'W	78.2	130	5	77.0	77.5	1020.7	02	4, 5, 8, 9	7	9	1	35.11
53	0210	7/25	30°05'N	179°58'W	79.7	170	7	78.0	72.5	1019.6	02	4, 5, 8, 9	6	9	1	-
54	0455	7/25	30°06'N	179°54'W	79.3	170	11	78.2	73.7	1019.3	02	4, 8, 1	2	9	1	35.25
55	1230	7/25	30°40'N	179°54'W	78.7	155	9	78.2	73.8	1019.8	60	X	X	9	1	34.69
56	1530	7/25	31°12'N	179°55'W	77.8	140	11	76.3	74.5	1018.5	02	X	X	9	1	35.00
57	1830	7/25	31°42'N	179°56'W	78.1	X	X	76.6	72.0	1018.4	02	2, 8	1	9	1	-
58	2215	7/25	31°49'N	179°58'W	78.9	220	14	77.4	73.7	1018.8	02	2, 8	2	9	2	35.12
59	0238	7/26	32°29'N	179°57'W	77.9	220	18	79.0	74.1	1016.8	02	8, 4, 2	4	9	1	34.72
60	0535	7/26	33°08'N	179°57'W	76.6	220	10	76.0	73.0	1015.8	25	2, 5, 8	8	8	1	34.56
61	0935	7/26	33°40'N	179°59'W	74.9	215	13	75.1	73.0	1016.0	02	X	X	8	1	-
62	1140	7/26	33°41'N	180°00'W	74.2	240	11	75.1	74.0	1015.4	02	X	X	8	1	34.33
63	1530	7/26	34°10'N	179°58'W	72.7	205	10	74.0	72.3	1012.9	60	0	0	X	1	34.05
64	1830	7/26	34°40'N	179°59'W	72.6	210	11	73.8	72.8	1013.1	60	8	7	8	1	34.38
65	2130	7/26	35°12'N	180°00'W	71.9	230	21	69.7	68.0	1012.7	51	7	8	8	2	-
66	0110	7/27	35°16'N	179°55'W	72.0	230	21	71.7	70.5	1011.2	51	7	8	7	2	34.40
67	0500	7/27	35°43'N	179°51'W	70.7	220	25	71.5	70.5	1008.3	65	7	8	4	4	33.91
68	0830	7/27	36°14'N	179°51'W	69.9	300	15	70.9	69.3	1007.3	60	X	8	X	4	34.31
69	1140	7/27	36°52'N	179°51'W	69.5	280	12	71.0	68.9	1008.0	02	X	X	X	4	34.36
70	1420	7/27	37°12'N	179°52'W	68.5	305	14	70.2	69.0	1007.8	02	X	X	X	3	-
71	1545	7/27	37°15'N	179°50'W	68.8	220	9	71.7	71.0	1008.7	02	6	8	7	3	34.31
72	2100	7/27	37°48'N	179°48'W	70.0	217	12	71.6	70.3	1010.3	02	6	9	7	3	34.43
73	0005	7/28	38°18'N	179°49'W	69.9	190	17	71.8	71.2	1010.1	50	6	8	7	3	34.39
74	0300	7/28	38°48'N	179°50'W	69.8	230	14	71.1	70.2	1009.4	25	6	8	7	3	-
75	0415	7/28	38°48'N	179°52'W	69.7	230	13	72.0	70.4	1010.0	16	6	8	6	2	34.28
76	0800	7/28	39°19'N	179°51'W	67.8	230	15	70.4	69.2	1011.6	00	X	8	X	2	34.12
77	1215	7/28	39°49'N	179°53'W	66.8	200	17	69.3	68.0	1011.7	00	X	X	X	3	34.26
78	1520	7/28	40°18'N	179°55'W	66.3	170	17	69.0	68.1	1013.0	02	6	6	8	3	-
79	1645	7/28	40°19'N	179°54'W	66.2	220	21	68.7	68.0	1013.1	02	6	6	8	3	34.06
80	2220	7/28	40°49'N	179°55'W	64.3	200	15	69.8	69.0	1014.1	02	X	9	3	3	33.98

Table 2.—Summary of observations at bathythermograph lowerings, HMS Cr. 30. (Underlined serial numbers indicate BT's taken at oceanographic station) (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Force kt.	Dry bulb °F.	Wet bulb °F.			Type	Cover			
81	0130	7/29	41°20'N	179°55'W	63.9	165	23	69.8	67.4	1014.0	02	X	9	3	3	34.09
82	0430	7/29	41°50'N	179°56'W	62.4	220	24	65.5	65.2	1014.5	47	X	X	2	4	-
83	0600	7/29	41°50'N	179°54'W	62.0	220	24	66.4	65.5	1014.4	45	X	X	2	4	33.95
84	1015	7/29	42°21'N	179°52'W	61.6	180	17	65.0	64.5	1017.0	45	X	X	X	4	33.87
85	1425	7/29	42°50'N	179°51'W	61.8	170	21	65.4	65.0	1016.8	45	X	X	X	4	33.94
86	1720	7/29	43°19'N	179°55'W	60.6	175	21	65.5	65.4	1017.1	45	Fog	9	4	3	-
87	1840	7/29	43°17'N	179°56'W	60.0	220	25	63.8	63.8	1018.3	63	Fog	9	4	3	33.93
88	2230	7/29	44°53'N	179°55'W	57.0	165	22	65.2	64.9	1019.0	63	Fog	9	3	3	33.41
89	0135	7/30	44°26'N	179°54'W	55.0	210	15	59.5	57.6	1020.3	28	Fog	9	3	3	35.14
90	0430	7/30	44°57'N	179°52'W	55.9	210	10	57.7	56.7	1021.4	01	4,5	6	8	3	-
91	0607	7/30	44°56'N	179°49'W	55.7	210	9	58.1	56.8	1021.9	03	1,4,5 Fog	7	3	3	33.24
92	1045	7/30	45°26'N	179°51'W	55.0	180	4	58.0	56.7	1023.8	02	X	8	7	3	33.24
93	1300	7/30	45°48'N	179°49'W	54.9	X	0	56.5	56.2	1024.1	03	Fog	8	1	3	33.01
94	1600	7/30	45°06'N	179°50'W	54.1	200	5	58.2	56.8	1025.0	02	Fog	9	2	2	-
95	1745	7/30	46°08'N	179°55'W	52.7	300	8	55.0	54.9	1025.5	50	Fog	9	2	2	32.99
96	2130	7/30	46°39'N	179°47'W	53.8	000	3	55.3	54.2	1027.2	02	Fog	9	2	2	34.72
97	0045	7/31	47°08'N	179°42'W	54.3	000	5	57.4	55.3	1027.9	02	X	9	7	1	33.04
98	0330	7/31	47°38'N	179°42'W	52.8	360	6	54.1	52.1	1028.9	01	4,5	7	7	1	-
99	0500	7/31	47°41'N	179°39'W	52.1	360	6	58.1	54.1	1028.9	02	4,5	7	7	1	32.90
100	0930	7/31	48°17'N	179°46'W	51.9	010	2	52.7	51.0	1030.2	03	5,6	7	7	0	32.95
101	1445	7/31	48°54'N	179°52'W	49.8	010	6	56.5	48.3	1030.7	03	X	7	X	0	32.94
102	1815	7/31	49°29'N	179°59'W	49.1	200	4	51.5	49.1	1031.6	02	6	8	8	1	-
103	2000	7/31	49°34'N	179°58'W	48.9	200	8	51.2	48.5	1031.3	02	6	8	8	0	32.83
104	0245	7/31	49°34'N	179°10'W	50.1	175	7	55.6	50.7	1032.0	02	6	9	8	0	32.81
105	0545	8/1	49°32'N	178°22'W	49.6	000	0	51.2	48.5	1032.0	02	6	9	8	1	32.70
106	1045	8/1	49°31'N	177°21'W	49.3	070	3	51.3	48.7	1032.1	02	X	X	8	1	-
107	1140	8/1	49°30'N	177°19'W	49.4	060	7	50.0	48.0	1031.4	02	X	X	8	0	32.69
108	1655	8/1	49°30'N	176°32'W	49.1	060	17	49.6	49.0	1029.8	25	X	9	6	1	32.59
109	1850	8/1	49°31'N	175°47'W	49.8	065	17	50.5	50.1	1029.8	28	X	9	3	1	32.68
110	2205	8/1	49°30'N	175°03'W	50.0	200	15	54.0	52.7	1029.6	28	Fog	9	2	1	-
111	2310	8/1	49°30'N	175°04'W	49.7	200	13	51.8	51.8	1029.6	28	Fog	9	2	1	32.66
112	0310	8/2	49°30'N	174°10'W	51.5	120	19	53.7	53.3	1028.7	45	Fog	9	2	3	32.52
113	0615	8/2	49°29'N	173°21'W	50.5	190	19	53.0	52.5	1028.9	45	X	9	4	3	32.62
114	1055	8/2	49°26'N	172°35'W	49.9	240	16	53.0	52.0	1029.1	01	X	8	7	3	-
115	1135	8/2	49°25'N	172°35'W	49.6	240	16	53.0	52.4	1029.2	02	X	8	-	3	32.57
116	1745	8/2	49°02'N	172°32'W	50.6	260	17	54.7	54.0	1027.9	21	X	9	4	2	32.52
117	2055	8/2	48°30'N	172°30'W	50.4	250	19	54.8	54.2	1028.5	45	X	9	2	4	32.64
118	0015	8/3	48°04'N	172°29'W	51.9	240	19	50.4	50.4	1028.7	45	X	9	2	4	-
119	0145	8/3	48°03'N	172°34'W	51.8	220	21	50.2	50.0	1028.8	45	X	9	2	3	32.86
120	0600	8/3	47°30'N	172°30'W	53.2	240	17	51.3	50.9	1028.8	45	X	9	2	3	-
121	0915	8/3	47°00'N	172°31'W	55.0	X	X	59.0	58.0	1028.3	45	X	9	2	2	-
122	1305	8/3	46°30'N	172°31'W	55.0	290	18	58.8	58.0	1028.8	01	X	8	-	2	-
123	1845	8/3	46°31'N	172°33'W	55.0	290	18	59.9	58.3	1028.6	45	X	9	2	2	33.03
124	1845	8/3	46°00'N	172°34'W	57.8	260	21	60.7	59.6	1028.6	02	0	8	6	3	33.19
125	2300	8/3	45°33'N	172°34'W	60.8	220	21	62.3	59.8	1029.8	02	0	8	7	2	33.17
126	0320	8/4	45°01'N	172°26'W	61.2	240	14	63.6	61.8	1028.8	02	0	8	8	2	-
127	0450	8/4	45°05'N	172°30'W	61.2	260	13	62.8	61.5	1028.4	02	0	8	8	2	33.19
128	1030	8/4	44°31'N	172°26'W	62.2	325	16	64.0	63.1	1028.9	02	5	4	9	01	33.24
129	1235	8/4	44°01'N	172°22'W	62.7	275	15	65.0	63.5	1028.3	03	6	4	9	01	33.29
130	1545	8/4	43°30'N	172°20'W	64.2	320	15	65.3	63.1	1028.3	03	6,8	8	9	2	-

Table 2.—Summary of observations at bathythermograph lowerings, HMS Cr. 30. (Underlined serial numbers indicate BT's taken at oceanographic station) (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Force kt.	Dry bulb °F.	Wet bulb °F.			Type	Cover			
131	1700	8/4	43°40'N	172°19'W	63.5	320	15	65.5	63.1	1028.4	02	6,8	8	9	2	33.60
132	2200	8/4	42°39'N	172°13'W	66.8	300	10	70.0	65.8	1029.0	02	6,8	7	9	1	33.73
133	0100	8/5	42°09'N	172°12'W	69.9	300	17	70.0	65.4	1028.8	02	4,6,8	7	9	1	33.82
134	0400	8/5	41°36'N	172°17'W	70.4	350	17	73.7	67.4	1028.7	02	0,6	8	9	2	-
135	0515	8/5	41°39'N	172°16'W	69.9	020	16	69.3	65.0	1028.3	03	0,6	8	9	2	34.02
135	0815	8/5	41°14'N	172°20'W	70.9	010	15	70.5	66.5	1029.3	02	0,6	8	9	2	34.04
137	1150	8/5	40°50'N	172°25'W	71.7	010	15	72.2	66.4	1028.8	02	0,6	8	9	2	34.04
138	1400	8/5	40°17'N	172°35'W	71.6	050	16	70.0	64.2	1027.8	02	6	8	9	2	-
139	1515	8/5	40°23'N	172°33'W	71.7	050	16	70.5	65.0	1027.7	02	6	6	9	2	34.13
140	2115	8/5	39°44'N	172°34'W	71.8	020	17	70.5	65.7	1028.4	01	3,4,5,8	4	9	2	34.04
141	2340	8/5	39°21'N	172°35'W	71.4	350	15	72.3	65.8	1027.8	01	4,5,8	4	9	2	34.09
142	0200	8/6	38°57'N	172°33'W	71.1	000	04	72.2	67.5	1027.0	02	6	8	8	2	-
143	0340	8/6	39°02'N	172°30'W	70.9	070	18	69.5	67.2	1026.5	50	6	8	8	2	34.14
144	0730	8/6	38°31'N	172°29'W	71.8	000	0	70.4	67.8	1026.4	50	6	8	8	03	34.09
145	1135	8/6	37°55'N	172°31'W	72.3	060	7	70.8	68.7	1025.2	50	6	8	8	02	34.30
146	1430	8/6	37°19'N	172°32'W	71.7	050	18	69.0	67.7	1023.7	53	X	8	X	3	-
147	1605	8/6	37°23'N	172°29'W	71.8	050	18	68.7	67.9	1023.4	53	6,8	8	7	4	34.29
148	1955	8/6	36°48'N	172°32'W	72.0	170	15	71.6	68.0	1024.4	15	6,8	6	8	2	34.19
149	2300	8/6	36°19'N	172°32'W	73.7	140	11	73.0	68.5	1024.2	01	8	2	9	2	34.27
150	0100	8/7	35°57'N	172°32'W	73.9	110	11	73.9	70.0	1024.0	02	8	2	9	2	-
151	0205	8/7	35°55'N	172°31'W	73.8	130	14	73.8	70.0	1024.0	02	8	2	9	2	34.36
152	0530	8/7	35°26'N	172°36'W	74.5	110	17	74.8	70.8	1023.5	02	8	2	9	2	34.45
153	0845	8/7	34°55'N	172°36'W	74.5	140	11	75.0	71.3	1024.3	02	X	X	X	3	34.44
154	1300	8/7	34°25'N	172°35'W	74.8	130	12	75.0	70.9	1024.9	02	8,2	1	9	3	-
155	1420	8/7	34°20'N	172°35'W	74.9	130	12	74.9	70.5	1024.7	03	8,5	3	9	2	34.58
156	1610	8/7	33°43'N	172°32'W	74.6	140	11	75.0	71.0	1025.6	81	8,5	4	9	3	34.60
157	2130	8/7	33°10'N	172°29'W	76.0	140	15	77.0	71.5	1025.5	01	8,5	6	9	3	34.87
158	0005	8/8	32°39'N	172°26'W	76.2	150	18	77.1	72.3	1025.6	03	8,5	7	9	3	-
159	0110	8/8	32°36'N	172°27'W	75.9	230	14	73.8	70.7	1025.6	21	8,5	8	7	2	34.87
160	0430	8/8	32°13'N	172°26'W	76.1	180	12	75.6	71.5	1025.0	21	0	8	8	3	34.78
161	0715	8/8	31°48'N	172°26'W	76.6	140	12	76.8	73.5	1025.5	21	0,3,9	5	8	3	34.96
162	1030	8/8	31°23'N	172°25'W	76.8	140	18	76.9	72.0	1025.6	25	8	3	9	3	-
163	1202	8/8	31°22'N	172°25'W	76.7	140	18	76.0	71.0	1025.6	25	5,8	6	9	3	35.25
164	1600	8/8	30°55'N	172°24'W	76.9	135	18	76.9	73.0	1024.7	15	8	6	9	3	35.23
165	1900	8/8	30°28'N	172°24'W	77.8	120	19	77.8	72.0	1025.6	01	8	2	9	4	35.40
166	2130	8/8	30°16'N	172°43'W	77.9	170	16	79.5	72.3	1025.3	02	8	3	9	4	-
167	2300	8/8	30°14'N	172°43'W	77.4	180	16	78.5	72.3	1025.3	02	8	2	9	3	35.02
168	0715	8/9	30°09'N	171°53'W	76.7	090	16	77.6	72.3	1024.7	02	X	X	9	3	35.06
169	1020	8/9	30°04'N	171°20'W	76.7	090	16	77.0	71.5	1025.0	02	3,8	2	9	3	35.18
170	1315	8/9	30°00'N	170°47'W	77.0	080	16	76.0	71.3	1023.7	03	2	7	9	3	-
171	1430	8/9	29°57'N	170°40'W	77.0	080	16	76.0	71.0	1023.4	02	2,8	7	9	3	35.22
172	1900	8/9	29°56'N	170°15'W	77.2	090	18	76.8	70.7	1024.1	15	1,2,4,8	7	8	4	35.22
173	2300	8/9	29°56'N	169°38'W	77.0	090	7	78.1	71.7	1024.0	03	8,4,5	7	9	3	35.30
174	0405	8/10	29°54'N	169°02'W	76.8	090	13	77.2	71.1	1023.4	02	8,2	4	9	3	-
175	0510	8/10	29°53'N	168°50'W	76.8	090	14	77.1	72.0	1023.4	02	8,2	4	9	3	35.12
176	1030	8/10	29°52'N	168°08'W	76.9	080	10	77.0	71.5	1024.1	02	X	9	9	3	-
177	1455	8/10	29°51'N	167°30'W	77.2	090	17	74.7	69.0	1023.2	02	8	7	9	3	35.43
178	1830	8/10	29°50'N	166°51'W	77.6	100	16	77.0	69.4	1024.2	01	8,2	4	9	3	-
179	1950	8/10	29°50'N	166°45'W	77.6	100	16	76.3	69.3	1024.7	02	2,4,5,8	4	9	3	35.45
180	0015	8/11	29°50'N	166°15'W	77.2	090	5	79.2	70.8	1024.0	03	5,8,4	5	9	3	35.50

Table 2.—Summary of observations at bathythermograph lowerings, HMS Cr. 30. (Underlined serial numbers indicate BT's taken at oceanographic station) (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GGT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Force kt.	Dry bulb °F.	Wet bulb °F.			Type	Cover			
181	0415	8/11	29°55'N	165°38'W	77.4	120	18	76.3	70.2	1023.3	01	2,4,5,8	2	9	3	35.46
182	0900	8/11	30°01'N	164°55'W	76.3	110	13	75.8	70.0	1025.0	02	X	X	9	3	-
183	1020	8/11	29°59'N	164°49'W	76.2	100	15	75.9	70.6	1025.2	01	8	2	9	2	35.15
184	1430	8/11	30°30'N	164°47'W	76.6	115	15	75.8	70.3	1024.4	02	8	3	9	2	35.33
185	1730	8/11	31°00'N	164°45'W	75.8	075	13	76.5	70.2	1025.4	02	8	7	9	2	35.33
186	2100	8/11	31°40'N	164°44'W	76.4	100	16	76.3	70.1	1026.4	02	8,2	4	9	2	-
187	2215	8/11	31°36'N	164°41'W	76.8	090	13	75.9	70.0	1026.5	02	8,2	2	9	2	35.36
188	0215	8/12	32°05'N	164°46'W	76.7	110	11	75.7	70.0	1025.5	02	8,2	2	9	2	35.10
189	0515	8/12	32°36'N	164°55'W	76.4	110	9	76.2	70.5	1025.8	02	8,2	3	9	1	35.00
190	0850	8/12	32°53'N	164°58'W	75.7	110	17	75.1	69.7	1027.0	02	X	X	9	2	-
191	1050	8/12	32°57'N	164°58'W	75.7	110	16	74.8	69.7	1026.5	02	X	X	9	2	34.86
192	1500	8/12	33°30'N	164°52'W	75.5	090	9	75.5	70.5	1025.3	02	X	6	9	2	34.82
193	1820	8/12	34°03'N	164°47'W	75.1	110	14	75.0	68.5	1025.8	01	2,4,8	2	9	2	34.72
194	2100	8/12	34°35'N	164°42'W	76.0	120	14	75.9	69.0	1026.3	02	2,4,8	3	9	2	-
195	2210	8/12	34°42'N	164°40'W	76.2	130	11	75.0	68.5	1026.4	02	2,4,8	5	9	2	34.82
196	0200	8/13	35°09'N	164°47'W	76.7	110	15	78.0	70.7	1024.2	03	3,4,8	7	9	2	34.74
197	0425	8/13	35°36'N	164°55'W	76.1	150	9	76.5	70.0	1024.2	02	2,4,5,8	7	9	2	34.66
198	0800	8/13	36°01'N	164°54'W	75.1	100	13	75.8	70.8	1025.0	02	X	X	9	2	-
199	0945	8/13	36°05'N	164°48'W	74.9	150	16	74.9	70.7	1025.2	50	X	X	8	2	34.57
200	1335	8/13	36°34'N	164°52'W	73.9	130	14	75.0	70.5	1023.0	02	X	X	8	2	34.12
201	1600	8/13	37°04'N	164°55'W	74.4	155	17	76.0	72.0	1023.0	02	8	4	9	1	34.19
202	1900	8/13	37°30'N	164°58'W	73.7	160	18	75.0	70.1	1023.7	02	2,4,5,8	7	9	3	-
203	2015	8/13	37°30'N	164°48'W	73.8	190	18	74.1	70.1	1024.1	02	2,4,5,8	6	9	3	34.23
204	2340	8/13	38°00'N	164°52'W	73.6	200	16	73.5	68.7	1024.1	25	5,8	7	9	3	34.22
205	0245	8/14	38°32'N	164°56'W	74.8	160	19	77.7	72.0	1024.0	01	8,4	7	9	2	34.40
206	0530	8/14	39°00'N	164°59'W	73.8	120	21	75.0	71.2	1025.0	03	0,8,5	8	9	3	-
207	0645	8/14	38°59'N	164°50'W	73.8	140	20	74.2	70.9	1025.8	02	0,8,5	8	9	3	34.29
208	1130	8/14	39°30'N	164°53'W	73.5	175	22	76.5	72.6	1026.5	02	X	X	9	3	34.22
209	1435	8/14	40°00'N	164°51'W	72.5	145	19	73.8	70.7	1026.8	02	8	1	9	3	34.04
210	1730	8/14	40°30'N	165°01'W	71.5	140	13	73.1	70.1	1028.0	03	8,1,2	3	9	3	-
211	1840	8/14	40°28'N	165°00'W	71.9	150	18	73.0	70.6	1028.8	03	8,1,2	6	8	3	34.05
212	2230	8/14	41°00'N	165°00'W	71.5	110	14	76.1	72.1	1029.4	02	8,1,3	6	9	3	33.87
213	0130	8/15	41°30'N	164°52'W	72.0	150	15	73.1	70.8	1029.5	01	2	4	8	3	33.97
214	0405	8/15	42°00'N	165°00'W	71.5	120	15	73.0	70.8	1029.8	03	0,4	4	9	2	-
215	0520	8/15	42°03'N	164°52'W	71.3	160	15	72.5	70.8	1030.5	02	3,8	4	9	2	33.95
216	1000	8/15	42°31'N	164°56'W	70.0	180*	9*	74.3	71.6	1031.4	02	X	X	9	2	33.71
217	1305	8/15	43°00'N	164°58'W	69.4	210	12	71.5	69.2	1031.0	02	2,8	2	9	2	33.70
218	1600	8/15	43°30'N	164°55'W	68.5	200	9	70.1	68.5	1030.5	03	2,6	7	8	2	-
219	1730	8/15	43°29'N	165°02'W	68.5	200	13	70.1	68.9	1030.6	02	5,6	7	8	2	33.33
220	2115	8/15	44°00'N	164°57'W	65.8	230	10	69.4	68.0	1030.7	25	0,6	8	6	2	-
221	0015	8/16	44°30'N	164°58'W	65.9	270	13	70.3	68.1	1029.6	02	6	7	6	2	33.05
222	0320	8/16	45°00'N	164°59'W	65.0	230	15	67.7	66.2	1029.0	03	0	8	5	2	-
223	0445	8/16	44°57'N	165°01'W	64.1	230	14	66.6	65.8	1028.9	50	X	9	5	2	33.03
224	1000	8/16	45°30'N	165°00'W	62.7	085	10	65.9	65.9	1029.8	02	X	X	3	2	33.06
225	1300	8/16	46°00'N	165°00'W	58.9	230	13	60.8	60.8	1026.9	51	Fog	X	3	2	32.73
226	1600	8/16	46°30'N	165°00'W	58.2	250	14	61.0	60.2	1025.6	45	Fog	X	2	2	-
227	1335	8/16	46°29'N	164°56'W	57.9	260	14	60.0	59.5	1025.8	45	Fog	X	2	2	32.70
228	2345	8/16	47°00'N	164°54'W	57.5	250	15	59.6	59.0	1023.8	45	Fog	X	2	2	32.65
229	0345	8/17	47°30'N	164°54'W	56.0	270	15	58.5	57.8	1021.8	45	Fog	X	2	2	32.64
230	0910	8/17	48°04'N	164°55'W	54.0	350	14	53.5	51.5	1022.5	55	Fog	X	2	2	-

\* Wind flag limp



Table 2.—Summary of observations at bathythermograph lowerings, HMS Cr. 30. (Underlined serial numbers indicate BT's taken at oceanographic station) (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.	Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Force kt.				Type	Cover			
231	1040	8/17	48°07'N	164°55'W	53.8	320	14	53.5	51.0	1023.0	21	X	X	2	2 32.54
<u>231A</u>	1400	8/17	48°30'N	164°57'W	53.1	000	12	52.2	48.0	1023.3	02	X	X	3	2 32.57
232	1730	8/17	49°00'N	164°58'W	52.4	020	12	51.4	46.8	1022.5	01	6	8	8	2 32.57
233	2130	8/17	49°31'N	165°00'W	52.1	000	10	52.2	48.1	1026.8	02	6	8	8	2 -
<u>234</u>	2250	8/17	49°29'N	165°00'W	52.1	000	9	52.2	47.5	1026.5	02	6	8	8	2 32.52
<u>235</u>	0300	8/18	49°32'N	164°12'W	52.1	340	14	52.4	48.2	1026.3	02	6	8	8	2 32.62
236	0615	8/18	49°35'N	163°24'W	51.4	340	10	51.8	48.1	1026.8	02	6	8	8	2 32.45
237	1040	8/18	49°39'N	162°30'W	51.2	290	16	51.3	49.6	1027.0	02	X	X	8	2 -
<u>238</u>	1150	8/18	49°42'N	162°25'W	51.3	310	12	50.5	48.0	1026.7	02	6	8	8	2 -
239	1600	8/18	49°42'N	161°43'W	51.8	320	14	52.6	49.3	1026.3	02	6	9	9	3 32.65
240	1920	8/18	49°43'N	160°51'W	51.9	340	19	52.4	49.7	1026.5	02	6	8	8	3 32.60
241	2245	8/18	49°45'N	159°45'W	52.0	330	13	52.0	49.4	1025.9	02	6	8	8	3 -
<u>242</u>	2355	8/18	49°48'N	159°40'W	51.9	330	13	50.9	49.0	1026.3	01	6	7	8	3 32.54
243	0400	8/19	49°43'N	158°57'W	52.1	340	13	52.0	50.0	1025.8	01	6	7	8	3 32.57
<u>243A</u>	0700	8/19	49°36'N	158°14'W	52.7	360	13	54.0	50.0	1026.3	03	6	8	8	3 32.59
<u>244</u>	1025	8/19	49°30'N	157°24'W	52.7	290	11	52.3	49.2	1027.2	02	X	X	8	3 -
<u>245</u>	1145	8/19	49°35'N	157°22'W	52.7	280	9	51.6	48.5	1027.0	02	X	X	8	2 32.59
<u>246</u>	1525	8/19	48°57'N	157°24'W	52.9	275	15	51.8	49.0	1027.5	02	0	8	9	2 32.57
247	1910	8/19	48°29'N	157°24'W	53.3	315	9	54.6	51.5	1029.0	02	0	8	9	2 32.63
248	2250	8/19	48°06'N	157°23'W	54.2	290	10	53.0	50.1	1029.5	02	6,8	8	8	2 -
249	0010	8/20	48°04'N	157°24'W	54.1	290	10	53.0	50.9	1029.4	50	6,8	8	8	2 32.61
<u>250</u>	0510	8/20	47°30'N	157°16'W	55.1	250	12	54.6	51.6	1028.9	15	6,8	8	8	2 -
251	0930	8/20	47°00'N	157°11'W	57.4	240	10	59.6	54.8	1029.6	03	X	9	8	2 32.73
252	1230	8/20	46°30'N	157°06'W	57.5	235	9	58.0	54.7	1028.5	02	X	X	X	2 32.80
<u>253</u>	1345	8/20	46°28'N	157°06'W	57.7	300	9	56.7	53.3	1029.2	02	X	X	9	1 32.77
254	1830	8/20	45°00'N	157°03'W	58.6	295	12	59.8	55.0	1029.8	02	6	8	9	1 32.96
255	2235	8/20	45°30'N	157°10'W	61.4	Calm	0	63.8	55.5	1029.8	01	5,8	4	9	1 33.03
256	0315	8/21	45°00'N	157°24'W	64.8	Calm	0	62.0	55.3	1029.8	03	2,3,5	7	8	1 -
<u>257</u>	0440	8/21	44°57'N	157°26'W	61.1	Calm	0	60.2	55.0	1028.8	02	2,3,5	7	8	1 33.09
<u>258</u>	0915	8/21	44°25'N	157°25'W	62.3	190	6	57.8	56.0	1029.4	02	2,8	7	8	1 33.20
259	1240	8/21	44°00'N	157°25'W	62.1	130	6	61.4	56.3	1028.9	02	X	X	X	1 33.17
260	1530	8/21	43°28'N	157°25'W	64.9	155	11	62.1	57.0	1028.4	02	1,8	1	9	1 -
<u>261</u>	1655	8/21	43°23'N	157°24'W	65.6	135	6	64.7	58.2	1029.0	02	1,8	1	9	1 33.48
<u>262</u>	1945	8/21	43°00'N	157°25'W	66.7	135	9	64.9	57.3	1029.1	02	1,8	1	9	1 33.64
263	2245	8/21	42°30'N	157°24'W	68.6	075	18	66.5	61.0	1028.4	02	1,1	1	9	2 33.91
<u>264</u>	0150	8/22	41°59'N	157°23'W	67.7	150	9	67.0	60.6	1027.2	03	6,8	7	9	2 -
<u>265</u>	0250	8/22	41°55'N	157°22'W	68.8	150	9	67.0	61.0	1027.0	01	6,2,4	6	9	2 33.86
<u>266</u>	0615	8/22	41°30'N	157°24'W	69.0	170	12	67.9	61.8	1027.1	01	2,4,5,8	2	9	2 33.93
267	1015	8/22	41°00'N	157°27'W	69.7	200	8	69.3	64.0	1027.4	03	X	X	9	2 33.84
268	1320	8/22	40°30'N	157°30'W	70.9	160	8	70.5	64.8	1026.3	51	X	X	8	2 -
269	1450	8/22	40°27'N	157°31'W	70.9	190	10	70.8	65.2	1026.3	20	X	X	8	1 33.79
<u>275A</u>	1815	8/22	40°00'N	157°29'W	72.6	180	8	73.0	68.1	1026.6	02	8,6	6	9	1 34.07
276A	2120	8/22	39°30'N	157°30'W	74.4	180	4	72.8	66.5	1027.2	02	1,5,8	2	9	1 34.09
277A	0030	8/23	39°02'N	157°30'W	75.0	110	4	72.5	66.5	1026.8	02	1,8	2	9	1 -
<u>278A</u>	0155	8/23	38°57'N	157°30'W	74.6	090	7	72.0	66.1	1026.5	02	1,8	2	9	1 34.11
279A	0515	8/23	38°30'N	157°30'W	74.1	130	7	72.6	66.1	1026.6	02	8	2	9	1 34.31
<u>280A</u>	0900	8/23	38°00'N	157°30'W	74.9	120	13	74.0	68.6	1027.5	02	X	2	9	1 34.16
281A	1230	8/23	37°29'N	157°30'W	75.3	115	11	74.0	68.9	1027.0	02	8	1	9	1 -
<u>282A</u>	1350	8/23	37°26'N	157°30'W	75.1	125	8	73.9	69.0	1027.0	02	8	1	9	1 34.39
<u>283A</u>	1710	8/23	37°00'N	157°30'W	75.2	160	9	76.0	69.0	1027.6	02	8	1	9	1 -

Table 2.—Summary of observations at bathythermograph lowerings, HMS Cr. 30. (Underlined serial numbers indicate BT's taken at oceanographic station) (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Force kt.	Dry bulb °F.	Wet bulb °F.			Type	Cover			
264A	2015	8/23	36°31'N	157°30'W	76.1	160	10	75.8	69.9	1028.7	02	8	2	9	2	34.38
265A	2315	8/23	36°00'N	157°30'W	75.9	100	9	75.1	68.7	1028.5	02	8	2	9	1	-
266A	0020	8/24	35°56'N	157°30'W	75.9	100	9	74.8	69.0	1028.6	02	8	2	9	1	34.51
267A	0315	8/24	35°31'N	157°30'W	75.9	120	14	76.0	68.2	1027.8	02	8	1	9	2	34.52
268A	0700	8/24	35°00'N	157°30'W	75.4	140	11	74.8	69.0	1028.9	02	8	2	9	2	34.56
269A	1045	8/24	34°30'N	157°30'W	75.4	080	14	75.0	68.9	1028.4	02	X	X	9	2	-
270	1200	8/24	34°28'N	157°30'W	75.2	100	14	74.7	68.8	1028.2	02	X	X	9	2	34.60
271	1535	8/24	34°00'N	157°33'W	75.4	110	18	74.2	68.5	1027.3	02	8	3	9	3	34.72
272	1850	8/24	33°30'N	157°32'W	75.9	100	21	76.0	70.2	1028.2	02	8	3	9	3	35.17
273	2200	8/24	32°59'N	157°29'W	75.5	110	17	75.0	69.5	1028.2	03	5,8	6	8	3	-
274	2315	8/24	32°56'N	157°29'W	75.5	110	14	75.0	70.2	1028.3	01	5,8	2	8	3	35.08
275	0320	8/25	32°30'N	157°30'W	75.3	130	11	75.1	70.0	1026.6	02	4,5,8	2	8	3	35.05
276	0645	8/25	32°00'N	157°30'W	75.0	140	19	75.1	70.0	1027.8	02	4,5	3	8	3	35.10
277	1055	8/25	31°31'N	157°31'W	75.6	110	16	76.0	69.5	1027.2	02	8	1	9	3	-
278	1230	8/25	31°28'N	157°30'W	75.9	080	16	75.0	68.9	1027.0	02	8	1	9	3	35.48
279	1610	8/25	31°00'N	157°30'W	75.7	060	18	74.6	67.5	1026.7	03	8	3	9	3	35.51
280	1915	8/25	30°30'N	157°30'W	75.8	110	18	76.0	69.2	1028.9	02	8	2	9	3	35.53
281	2215	8/25	29°54'N	157°30'W	76.0	110	17	75.3	69.5	1027.0	02	8	2	8	3	-
282	0010	8/26	29°51'N	157°30'W	76.0	090	18	75.1	69.0	1026.3	02	8	2	8	3	35.50
283	0340	8/26	29°30'N	157°31'W	75.5	100	20	75.4	69.2	1025.9	02	8	3	9	3	35.53
284	0650	8/26	29°00'N	157°30'W	75.7	090	19	74.9	69.5	1026.3	02	4,8	3	8	3	35.58
285	1100	8/26	28°30'N	157°32'W	76.2	100	20	75.0	70.0	1025.3	02	8	1	9	3	-
286	1235	8/26	28°27'N	157°31'W	76.5	080	19	75.0	70.0	1024.9	02	8	1	9	3	35.49
287	1605	8/26	28°00'N	157°35'W	76.2	085	11	75.0	69.6	1024.1	02	8	3	9	3	35.42
288	1915	8/26	27°39'N	157°33'W	75.9	100	24	74.8	70.2	1024.0	02	8	3	8	4	35.26
289	2225	8/26	26°59'N	157°30'W	76.0	070	18	75.1	69.9	1023.5	02	1,5,8	3	8	4	-
290	2335	8/26	26°58'N	157°27'W	75.9	070	19	75.0	68.5	1022.9	02	5,8	2	8	4	35.34
291	0305	8/27	26°30'N	157°30'W	75.9	070	19	76.0	71.5	1021.6	14	5,8	3	8	4	35.40
292	0615	8/27	26°00'N	157°30'W	75.5	080	19	74.9	69.3	1022.3	02	8	2	8	4	35.42
293	1000	8/27	25°30'N	157°30'W	75.0	085	13	74.0	70.5	1021.6	02	X	X	9	3	-
294	1155	8/27	25°30'N	157°33'W	75.2	073	18	74.8	68.7	1020.9	02	8	1	9	3	35.45
295	1740*	8/27	24°52'N	157°33'W	75.5	065	20	74.5	71.0	1020.4	02	6,8	7	9	3	35.24
296	1905	8/27	24°30'N	157°33'W	75.9	080	23	75.9	70.3	1020.6	02	6,8	7	9	3	35.19
297	2205	8/27	23°58'N	157°32'W	76.1	090	22	75.7	69.2	1019.9	02	8	3	8	4	-
298	2320	8/27	23°54'N	157°32'W	75.9	080	22	75.4	69.0	1019.2	02	8	2	8	4	35.04
299	0225	8/28	23°30'N	157°32'W	75.8	080	23	75.3	70.0	1017.4	16	8	2	8	4	34.97
300	0535	8/28	23°00'N	157°31'W	76.2	080	24	75.2	70.4	1018.0	16	8	3	8	4	34.91
301	0940	8/28	22°39'N	157°37'W	75.8	085	19	74.9	69.7	1019.2	02	8	3	9	4	-
302	1050	8/28	22°30'N	157°36'W	75.7	065	14	74.0	68.4	1019.0	25	8	2	9	4	34.86
303	1505	8/28	22°00'N	157°35'W	75.7	085	20	74.2	69.3	1017.0	02	2	8	9	3	34.89

\* 40-minute delay due to broken meter belt

Table 3.—Record of the number of sightings per day of bird flocks, scattered birds, and flying fish, HMS Cr. 30

Date 1955	1200 Position		Flocks										Scattered Birds										Flying Fish		
	Latitude N.	Longitude W.	Total number	Size			Composition							Blackfooted Albatross	Laysan Albatross	Petrel or Shearwater	Booby	Tern	Frigate	Bo'sun	Storm Petrel	Skua		Puffin	Unidentified
				< 10	10 - 50	> 50	Booby	Bo'sun	Frigate	Tern	Petrel or Shearwater	Unident. Shore Birds	Unidentified												
7/16	23°06'	160°09'	3	-	3	-	3	1	3	1	3	-	-	-	9	1	2	-	-	-	-	-	-	-	3
7/17	24°34'	163°25'	-	-	-	-	-	-	-	-	-	-	-	-	13	2	-	-	3	-	-	-	-	-	1
7/18	25°50'	166°07'	-	-	-	-	-	-	-	-	-	-	-	-	4	1	4	-	-	-	-	-	-	-	2
7/19	26°49'	169°32'	-	-	-	-	-	-	-	-	-	-	-	4	-	14	-	2	-	4	1	-	-	-	8
7/20	27°31'	172°48'	-	-	-	-	-	-	-	-	-	-	-	4	8	13	-	5	-	5	1	-	-	-	4
7/21	28°11'	176°08'	2	-	1	1	2	2	-	6	5	-	-	1	4	32	4	28	1	8	-	-	-	-	-
7/24	29°50'	179°38'	-	-	-	-	-	-	-	-	-	-	-	2	3	6	1	7	-	5	-	-	-	-	3
7/25	31°50'	179°58'	-	-	-	-	-	-	-	-	-	-	-	-	3	19	-	1	5	-	-	-	-	-	3
7/26	35°15'	179°55'	-	-	-	-	-	-	-	-	-	-	-	2	2	9	-	-	-	-	-	-	-	-	-
7/27	38°18'	179°49'	2	-	2	-	-	-	-	2	-	-	-	9	5	28	-	-	-	1	-	-	-	-	-
7/28	41°04'	179°54'	-	-	-	-	-	-	-	-	-	-	-	1	2	13	-	-	-	-	2	-	-	-	-
7/29	44°17'	179°54'	-	-	-	-	-	-	-	-	-	-	-	3	2	19	-	-	-	4	-	-	-	-	-
7/30	47°04'	179°41'	9	1	5	3	-	-	-	-	8	-	1	3	1	5	-	-	-	1	-	-	-	-	-
7/31	49°36'	179°59'	3	-	2	1	-	-	-	-	-	1	3	4	-	24	-	-	-	10	1	13	-	-	-
8/1	49°32'	175°03'	-	1	-	-	-	-	-	-	1	2	-	2	-	8	-	-	-	-	1	1	3	-	-
8/2	48°04'	172°30'	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-
8/3	45°24'	172°29'	-	-	-	-	-	-	-	-	-	-	-	7	1	4	1	1	-	1	-	-	-	-	-
8/4	42°24'	172°11'	1	1	-	-	-	-	-	3	-	-	-	8	2	-	-	-	-	4	-	-	-	-	-
8/5	39°15'	172°35'	-	-	-	-	-	-	-	-	-	-	-	5	2	3	-	-	-	3	-	-	-	-	-
8/6	36°07'	172°32'	-	-	-	-	-	-	-	-	-	-	-	6	-	18	-	2	1	-	-	-	-	-	-
8/7	32°39'	172°29'	-	-	-	-	-	-	-	-	-	-	-	3	-	2	-	1	-	5	-	-	-	-	9
8/8	30°15'	172°42'	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	1	-	-	-	-	7
8/9	29°56'	169°40'	-	-	-	-	-	-	-	-	-	-	-	1	8	-	-	-	2	-	-	-	-	-	6
8/10	29°49'	166°25'	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	5
8/11	31°35'	164°40'	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/12	34°43'	164°41'	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	1	-	-	-	-	-	-	5
8/13	37°55'	164°51'	-	-	-	-	-	-	-	-	-	-	-	8	3	-	-	-	-	-	-	-	-	-	1
8/14	41°09'	164°59'	-	-	-	-	-	-	-	-	-	-	-	6	5	-	-	-	-	9	-	-	-	-	1
8/15	44°19'	164°53'	-	-	-	-	-	-	-	-	-	-	-	8	-	12	-	-	-	4	-	-	1	-	-
8/16	46°56'	164°53'	-	-	-	-	-	-	-	-	-	-	-	2	-	4	-	-	-	-	-	-	-	-	-
8/17	49°29'	164°59'	-	-	-	-	-	-	-	-	1	-	-	8	3	17	-	-	-	9	5	3	-	-	1
8/18	49°46'	159°42'	1	-	1	-	-	-	-	-	-	1	-	5	2	21	-	-	-	4	-	23	32/	-	-
8/19	48°09'	157°24'	-	-	-	-	-	-	-	-	-	-	-	4	-	3	-	-	-	1	2	-	-	-	-
8/20	45°33'	157°08'	-	-	-	-	-	-	-	-	-	-	-	9	1	4	-	-	-	1	-	-	-	-	-
8/21	42°31'	157°25'	1	-	1	-	-	-	-	-	1	-	-	10	-	-	-	-	-	1	8	-	-	-	-
8/22	39°21'	157°30'	-	-	-	-	-	-	-	-	-	-	-	4	-	3	-	-	1	1	-	-	-	-	1
8/23	36°06'	157°30'	-	-	-	-	-	-	-	-	-	-	-	5	-	3	-	-	3	-	-	-	-	-	2
8/24	32°59'	157°29'	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	6
8/25	29°54'	157°30'	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
8/26	26°59'	157°30'	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	1
8/27	23°55'	157°33'	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	2	-	-	-	1	-	9

1/ Flock of 25 skuas.

2/ One sighting was a glaucous gull.

Table 4.--Record of aquatic mammals sighted, HMS Cr. 30

Date 1955	Time LCT	Position		Observation	Number
		Lat. (N)	Long. (W)		
7/21	0848	28°03'	175°35'	Whale	10
7/21	1217	28°11'	176°11'	Whale	1
7/30	0910	46°36'	179°48'	Whale	1
7/30	1715	47°41'	179°39'	Whale	1
8/3	0905	45°45'	172°34'	Whale	1
8/6	1650	35°33'	172°35'	Whale	1
8/11	1200	31°36'	164°40'	Sperm Whale 1/	3
8/11	1342	31°51'	164°43'	Sperm Whale 1/	2
8/13	1508	38°28'	164°56'	Whale	1
8/14	0540	40°22'	165°00'	Whale	1
8/15	1300	44°27'	164°57'	Fin Whale 1/	6
8/16	1840	47°49'	164°55'	Whale	4
8/17	0753	49°11'	164°59'	Whale	1
8/17	1700	49°33'	163°58'	Whale	4
8/18	1040	49°44'	159°53'	Whale	1
8/18	1720	49°42'	158°50'	Whale	1
8/19	1800	47°30'	157°16'	Sperm Whale 2/	1
8/20	0900	45°52'	157°04'	Whale	1
8/21	1230	42°30'	157°24'	Whale	2
7/31	1350	49°34'	179°22'	Porpoise	4
8/17	1815	49°34'	163°40'	Porpoise	25
8/17	1840	49°34'	163°34'	Porpoise	10
8/18	1055	49°45'	160°07'	Porpoise	5
8/19	0520	48°57'	157°24'	Porpoise	10
8/19	1615	-	-	Porpoise	7
7/30	1235	47°08'	179°42'	Fur Seal	2
8/19	1100	48°17'	157°24'	Fur Seal	1
8/19	1310	48°05'	157°24'	Fur Seal	3
8/19	1615	46°02'	157°24'	Fur Seal	1

1/ Whales were identified by their profiles using the key from "Materials for cooperative North Pacific observations by Japan, the United States, and Canada, April 1, 1955".

2/ Carcass was floating in the water.



Table 5.--Data on troll-caught fish, HMS Cr. 30

Date 1955	LCT	Position		Species	No. <sup>1/</sup>	Average length cm.	Surf. temp. °F.	Vessel speed kt.
		Latitude	Longitude					
7/21	1715	28°15'N	177°07'W	Wahoo	1	-	80	9.0
8/3	0600	46°05'N	172°34'W	Albacore	1	61	56	7.2
8/7	0800	33°20'N	172°31'W	Dolphin	3	102	75	9.0
8/7	1430	32°31'N	172°26'W	Dolphin	1	64	76	9.0
8/19	1455	48°04'N	157°24'W	Albacore	2	76	54	7.2
8/19	1615	47°54'N	157°21'W	Albacore	2	75	54	7.2
8/20	0630	46°30'N	157°06'W	Albacore	1	60	55	7.2
8/20	0800	46°28'N	157°06'W	Albacore	1	58	54	7.2
8/21	1350	42°18'N	157°24'W	Skipjack	1	44	69	9.0
8/23	0915	36°50'N	157°30'W	Dolphin	3	71	76	9.0
8/23	1715	35°31'N	157°30'W	Dolphin	1	89	76	9.0
8/26	1750	26°59'N	157°30'W	Dolphin	2	69	76	9.0

<sup>1/</sup> Fish caught within one hour of each other were placed in a single group.

Table 6.--Estimated zooplankton volumes, as cc/1000  
cubic meters of water strained, HMS Cr. 30

Station	Date 1955	Time (GCT)	Latitude	Longitude	Depth in meters	Volume
2	7/16	1958-2032	23°06'N	160°08'W	144	12.9
4	7/17	1015-1037	23°46'N	161°38'W	144	34.2
5	7/17	2252-2312	24°32'N	163°23'W	140	21.3
7	7/18	1417-1452	25°21'N	165°07'W	154	27.1
8	7/19	0247-0325	26°02'N	166°41'W	142	11.7
10	7/19	1450-1515	26°23'N	168°15'W	131	18.5
11	7/20	0256-0322	26°58'N	170°00'W	140	14.6
14	7/21	0319-0347	27°39'N	173°15'W	140	9.5
16	7/21	1527-1550	28°00'N	175°00'W	128	24.3
19	7/24	1515-1541	29°05'N	178°36'W	138	60.9
20-1	7/25	0320-0414	30°08'N	180°02'W	139	8.8
20-2	7/25	0422-0431	30°07'N	179°39'W	43	27.3
22	7/25	2150-2214	31°46'N	179°58'W	141	14.6
23-1	7/26	0834-0850	33°39'N	179°57'W	186	18.6
23-2	7/26	0905-0920	33°40'N	179°59'W	59	43.5
24	7/26	2140-2212	35°13'N	179°59'W	148	4.8
25-1	7/27	1419-1441	37°13'N	179°51'W	138	51.8
25-2	7/27	1444-1501	37°13'N	179°51'W	48	36.8
26	7/28	0310-0335	38°47'N	179°51'W	140	4.3
28-1	7/28	1531-1600	40°18'N	179°57'W	141	77.6
28-2	7/28	1604-1609	40°18'N	179°57'W	40	58.7
29	7/29	0442-0514	41°50'N	179°56'W	140	113.1
32	7/30	0440-0515	44°57'N	179°51'W	140	224.2
34-1	7/30	1615-1645	46°09'N	179°50'W	139	74.8
34-2	7/30	1645-1659	46°08'N	179°52'W	71	122.2
35	7/31	0339-0400	47°40'N	179°42'W	140	80.0
37-1	7/31	1847-1913	49°30'N	179°59'W	145	37.1
37-2	7/31	1916-1929	49°31'N	179°59'W	45	128.2
38	8/1	1040-1102	49°31'N	177°21'W	139	197.2
39	8/1	2210-2240	49°30'N	175°03'W	140	94.2
40-1	8/2	1030-1045	49°27'N	172°35'W	143	140.8
40-2	8/2	1056-1110	49°26'N	172°35'W	49	Not metered
41-1	8/3	0024-0043	48°02'N	172°31'W	140	205.9
41-2	8/3	0047-0055	48°03'N	172°34'W	47	56.0
43	8/3	1315-1338	46°29'N	172°33'W	142	83.2
44-1	8/4	0325-0406	45°02'N	172°28'W	139	62.4
44-2	8/4	0409-0420	45°03'N	172°29'W	51	291.0
46	8/4	1534-1612	43°27'N	172°20'W	140	17.7
47	8/5	0401-0440	41°37'N	172°19'W	142	14.6
49	8/5	1410-1435	40°19'N	172°33'W	140	97.8
50	8/6	0209-0227	38°58'N	172°32'W	138	12.5
52	8/6	1449-1515	37°21'N	172°29'W	140	27.3
53-1	8/7	0102-0130	35°56'N	172°31'W	139	4.6
53-2	8/7	0131-0138	35°55'N	172°31'W	31	2.5
55	8/7	1314-1340	34°24'N	172°35'W	140	24.9
56	8/8	0014-0035	32°38'N	172°25'W	141	14.6
58-1	8/8	1045-1125	31°23'N	172°24'W	141	31.6
58-2	8/8	1127-1139	31°22'N	172°25'W	37	27.9
59-1	8/8	2144-2200	30°15'N	172°46'W	142	10.6
59-2	8/8	2208-2216	30°14'N	172°44'W	30	8.0

1 = Deep } Sample  
2 = Shallow }

Table 6.--Estimated zooplankton volumes as cc/1000  
cubic meters of water strained, HMS Cr. 30 (cont'd)

Station	Date 1955	Time (GCT)	Latitude	Longitude	Depth in meters	Volume
61-1	8/9	1324-1348	29°59'N	170°45'W	141	33.9
61-2	8/9	1352-1405	29°58'N	170°43'W	33	31.0
62-1	8/10	0407-0427	29°54'N	168°51'W	140	9.3
62-2	8/10	0437-0445	29°54'N	168°50'W	21	17.6
64-1	8/10	1838-1904	29°51'N	166°49'W	140	10.7
64-2	8/10	1907-1924	29°51'N	166°48'W	40	3.8
65-1	8/11	0907-0930	30°01'N	164°52'W	140	15.9
65-2	8/11	0933-0943	29°59'N	164°49'W	30	19.0
66-1	8/11	2113-2136	31°39'N	164°43'W	140	10.2
66-2	8/11	2139-2155	31°38'N	164°42'W	41	8.3
67-1	8/12	0858-0935	32°54'N	164°57'W	139	37.4
67-2	8/12	0937-1000	32°54'N	164°58'W	33	45.2
68-1	8/12	2108-2136	34°37'N	164°42'W	140	14.3
68-2	8/12	2138-2146	34°38'N	164°41'W	34	9.2
69-1	8/13	0704-0733	36°03'N	165°00'W	140	41.2
69-2	8/13	0734-0749	36°01'N	164°58'W	30	72.2
70-1	8/13	1909-1938	37°28'N	164°57'W	139	4.4
70-2	8/13	1939-1956	37°29'N	164°55'W	33	4.7
71-1	8/14	0537-0559	38°59'N	164°56'W	140	6.3
71-2	8/14	0610-0616	38°59'N	164°55'W	17	19.8
73-1	8/14	1738-1806	40°29'N	165°01'W	140	13.1
73-2	8/14	1807-1817	40°27'N	165°02'W	20	4.9
74-1	8/15	0406-0428	41°59'N	165°01'W	100	35.9
74-2	8/15	0430-0438	41°57'N	165°02'W	13	103.9
76-1	8/15	1609-1644	43°30'N	164°57'W	140	63.3
76-2	8/15	1647-1701	43°30'N	164°59'W	20	83.7
77-1	8/16	0323-0359	44°58'N	165°01'W	140	41.3
77-2	8/16	0402-0411	44°57'N	165°02'W	10	13.4
79-1	8/16	1742-1814	46°28'N	164°59'W	140	135.3
79-2	8/16	1610-1627	46°29'N	165°02'W	15	302.5
80-1	8/17	0915-0945	48°04'N	164°55'W	139	249.6
80-2	8/17	0950-1004	48°06'N	164°54'W	15	351.0
81-1	8/17	2134-2210	49°31'N	165°01'W	140	32.3
81-2	8/17	2211-2220	49°30'N	165°00'W	25	108.7
83-1	8/18	0944-1000	49°40'N	162°29'W	137	113.6
83-2	8/18	1003-1010	49°41'N	162°27'W	31	197.1
84-1	8/18	2247-2313	49°47'N	159°43'W	141	21.7
84-2	8/18	2315-2327	49°48'N	159°42'W	33	9.9
86	8/19	1030-1104	49°33'N	157°24'W	139	29.6
87-1	8/19	2255-2325	48°05'N	157°24'W	140	56.4
87-2	8/19	2328-2340	48°06'N	157°24'W	26	135.6
89-1	8/20	1232-1305	46°29'N	157°07'W	138	84.2
89-2	8/20	1310-1330	46°28'N	157°07'W	23	151.8
90-1	8/21	0320-0355	44°59'N	157°25'W	140	47.2
90-2	8/21	0400-0414	44°58'N	157°26'W	29	167.6
93-1	8/21	1540-1610	43°27'N	157°26'W	141	37.6
93-2	8/21	1612-1626	43°26'N	157°26'W	22	37.4
94-1	8/22	0149-0219	41°58'N	157°23'W	140	26.2
94-2	8/22	0222-0232	41°57'N	157°23'W	27	71.7
96-1	8/22	1325-1342	40°29'N	157°31'W	119	54.2

1 = Deep } Sample  
2 = Shallow }

Table 6.--Estimated zooplankton volumes as cc/1000  
cubic meters of water strained, HMS Cr. 30 (cont'd)

Station	Date 1955	Time (GCT)	Latitude	Longitude	Depth in meters	Volume
96-2	8/22	1352-1400	40°28'N	157°32'W	25	37.3
97-1	8/23	0038-0107	39°01'N	157°30'W	140	5.5
97-2	8/23	0110-0121	38°58'N	157°30'W	34	5.2
99-1	8/23	1244-1314	37°28'N	157°30'W	140	20.1
99-2	8/23	1316-1324	37°27'N	157°30'W	25	23.9
100-1	8/23	2317-2343	35°59'N	157°30'W	132	11.3
100-2	8/23	2345-0000	35°58'N	157°30'W	33	1.6
102-1	8/24	1044-1120	34°30'N	157°30'W	141	54.9
102-2	8/24	1124-1131	34°29'N	157°30'W	33	49.2
103-1	8/24	2204-2233	32°59'N	157°29'W	140	11.2
103-2	8/24	2234-2258	32°57'N	157°29'W	40	7.2
105-1	8/25	1058-1134	31°30'N	157°30'W	141	21.6
105-2	8/25	1135-1202	31°29'N	157°30'W	78	22.7
106-1	8/25	2224-2300	29°54'N	157°30'W	140	12.6
106-2	8/25	2303-2313	29°52'N	157°29'W	59	12.1
108-1	8/26	1106-1136	28°29'N	157°32'W	140	18.0
108-2	8/26	1138-1200	28°28'N	157°31'W	85	29.4
109-1	8/26	2232-2255	26°59'N	157°29'W	140	12.2
109-2	8/26	2257-2308	26°58'N	157°28'W	52	27.4
111	8/27	1016-1044	25°31'N	157°31'W	147	23.8
112-1	8/27	2208-2240	23°56'N	157°31'W	140	15.6
112-2	8/27	2244-2254	23°55'N	157°31'W	49	29.1
114-1	8/28	0940-1009	22°32'N	157°37'W	143	17.5
114-2	8/28	1011-1021	22°31'N	157°37'W	40	36.3

1 = Deep  
2 = Shallow } Sample

Table 7.--Group counts, as numbers of organisms per 1000 cubic meters of water strained, HMS Cr. 30

Station No.	Foraminifera	Radiolaria	Coelenterata	Chaetognaths	Annelida	Copepoda	Ostracoda	Amphipoda	Euphausiacea	Decapoda	Pteropoda	Heteropoda	Tunicata	Fish larvae	Other
2	-	300	850	2100	40	7840	700	260	700	110	300	-	960	70	630
4	350	2500	2850	2850	260	16860	2250	520	2160	260	260	90	860	430	600
5	150	1700	1460	4740	600	10940	1200	300	1200	150	650	250	400	100	450
7	210	770	2100	2520	70	10000	700	770	1330	550	280	-	1260	490	4490
8	-	600	1150	1350	120	3820	200	200	800	170	120	-	230	200	700
10	30	830	1190	2230	30	5720	730	430	1270	230	400	30	200	230	600
11	40	1490	1540	2440	90	4700	140	270	400	180	400	40	1000	-	630
14	-	180	1070	1400	90	3360	120	120	890	60	300	-	240	90	300
16	90	520	1800	2780	400	8050	1460	520	800	90	470	190	1770	250	420
19	-	-	4450	5340	130	17000	890	1650	1650	1020	1650	130	890	1530	1270
20-1	120	110	680	1000	-	3550	410	280	420	70	50	90	350	50	190
20-2	250	420	1020	7220	170	7930	-	680	170	1330	170	170	1200	250	590
22	-	200	450	1400	450	3130	240	380	350	170	140	35	1220	-	70
23-1	-	-	40	120	-	5300	160	200	1600	40	160	-	-	-	40
23-2	-	-	280	280	-	14740	280	350	420	70	350	140	-	-	-
24	20	100	130	1270	-	3250	30	157	110	-	60	110	90	30	30
25-1	-	-	260	1650	-	8950	520	520	2490	-	90	170	170	-	-
25-2	-	300	75	380	-	6860	230	1050	3770	-	150	750	300	-	150
26	20	100	190	800	30	1080	60	200	150	-	480	140	50	-	1430
28-1	-	-	350	2820	-	26000	350	530	7220	-	-	530	2640	-	-
28-2	160	160	790	1440	320	13900	160	480	4160	-	640	-	960	-	940
29	270	1360	6280	400	140	1230	-	-	-	-	1230	270	41000	-	550
32	160	50	1340	380	50	900	50	110	50	-	160	110	700	-	1610
34-1	-	770	700	930	37000	560	370	5200	-	740	-	-	-	-	-
34-2	-	-	2490	7100	1070	68900	700	2130	9600	-	-	-	-	-	1780
35	-	1180	590	2750	200	74200	390	2750	2520	-	200	-	2550	-	790
37-1	-	-	450	103	-	22400	150	880	2060	-	-	-	150	-	1330
37-2	-	-	3000	9000	-	59200	-	4800	5400	600	-	-	-	-	-
38	-	-	-	5570	620	130000	620	620	10500	-	-	-	-	-	1240
39	510	510	770	1540	510	54400	770	1540	260	-	260	-	510	-	510
40-1	-	520	1560	4164	1560	91600	1040	4700	520	-	-	-	2600	-	1040
40-2*	-	-	-	-	-	P	-	-	P	-	-	-	-	-	-
41-1*	-	-	-	P	-	P	-	P	P	-	-	-	-	-	-
41-2*	-	-	-	-	-	P	P	P	P	-	-	-	-	-	-
43	200	1200	2380	4760	400	26600	600	5350	7540	-	600	-	-	-	400
44-1	-	1870	-	1120	-	50000	190	700	1680	-	-	-	-	-	1122
44-2	-	-	-	-	-	99300	-	-	2500	-	-	-	-	-	-
46	-	1300	490	2240	40	2240	200	240	1880	-	610	-	240	-	330
47	90	90	800	90	-	50	-	50	50	-	50	90	3580	-	90
49	-	290	860	290	290	21200	570	290	290	-	102500	570	7150	-	-
50	190	30	980	110	30	1430	130	350	210	30	4300	1120	80	30	290
52	-	50	100	1400	50	6000	325	620	2200	50	100	50	-	-	50
53-1	40	480	1930	170	-	940	250	60	210	-	480	300	-	30	100
53-2	60	-	1740	60	-	420	-	-	20	-	80	211	-	-	80
55	-	730	1380	800	150	12300	1460	290	1600	-	580	-	1750	70	290
56	1010	680	540	1720	370	7340	200	100	300	70	30	70	640	30	240
58-1	340	1720	1970	3340	170	11300	770	430	770	430	860	170	3080	340	1540
58-2	-	480	890	5000	400	13000	80	1450	1780	400	646	480	2900	400	2100
59-1	-	1060	210	700	140	2140	-	180	70	40	140	-	880	100	70
59-2	239	1670	480	3940	360	4000	60	-	180	180	180	180	1610	60	780

Table 7.--Group counts, as numbers of organisms per 1000 cubic meters of water strained, HMS Cr. 30 (cont'd)

Station No.	Foraminifera	Radiolaria	Coelenterata	Chaetognatha	Annelida	Copepoda	Ostracoda	Amphipoda	Euphausiacea	Decapoda	Pteropoda	Heteropoda	Tunicata	Fish larvae	Other
61-1	200	1700	1400	1600	200	10800	900	800	2200	200	100	100	1100	200	400
61-2	180	920	740	2280	280	5660	280	550	2490	280	90	90	1200	550	90
62-1	35	430	640	1100	160	2000	200	250	700	100	180	145	275	55	200
62-2	225	1800	1500	3550	150	3330	-	75	75	380	700	75	300	150	450
64-1	90	470	900	1120	190	7380	340	630	630	130	190	90	590	220	340
64-2	-	190	270	750	-	3200	-	40	150	80	60	40	380	40	310
65-1	30	550	510	610	270	5600	680	410	680	-	380	70	650	170	610
65-2	-	580	660	1910	250	8230	910	830	2000	420	580	500	2400	80	750
66-1	30	900	760	1090	30	6680	240	540	270	180	240	60	240	60	470
66-2	210	750	570	3430	110	4000	-	-	71	110	210	180	460	-	500
67-1	120	1670	1430	1070	360	12400	1190	1550	2020	-	950	-	-	-	120
67-2	70	4200	800	1800	800	11650	1130	1000	5210	360	1160	290	150	220	580
68-1	30	860	380	1000	140	3310	480	520	660	-	170	100	30	-	240
68-2	110	4020	1540	3030	220	4250	-	170	-	275	550	160	280	110	660
69-1	-	280	560	840	560	10800	2950	2250	3940	-	280	280	-	-	140
69-2	190	380	3790	2850	2090	6510	1900	5500	6370	760	190	380	760	190	380
70-1	-	250	235	280	30	1070	250	280	800	-	310	550	-	-	120
70-2	20	140	370	680	100	290	-	-	550	20	490	2420	40	20	470
71-1	20	30	140	160	20	540	190	360	470	250	2300	1560	-	-	280
71-2	-	80	380	80	380	5340	1140	2750	2980	760	23600	3200	-	30	2700
73-1	110	420	2400	1330	-	3240	-	300	800	70	190	150	-	40	530
73-2	40	80	250	580	20	410	-	80	160	120	250	515	40	20	360
74-1	100	1270	2730	780	100	2050	-	100	680	390	10	100	3600	-	290
74-2	260	1050	530	530	-	530	-	260	-	-	260	260	18700	260	2100
76-1	-	2780	1620	2670	120	1280	-	350	7780	120	700	-	8240	700	1160
76-2	-	800	3240	1890	-	2690	-	-	164800	-	240	-	7550	2430	1890
77-1	-	680	1920	790	-	15300	-	1580	1020	110	450	-	-	-	1250
77-2	1520	480	1960	760	-	7360	-	240	320	-	360	-	280	40	280
79-1	-	5280	2640	7400	-	53860	530	530	24800	-	1580	-	-	-	1580
79-2	-	-	-	770	-	103200	-	1540	173400	-	1540	-	-	-	-
80-1	-	-	-	3980	-	246400	-	-	35000	-	800	-	-	-	800
80-2	-	1500	60	16500	-	44900	-	-	83300	-	3000	-	-	-	-
81-1	-	-	-	100	-	25000	100	510	-	-	-	-	100	-	100
81-2	-	-	-	330	-	165000	-	-	-	-	-	-	330	-	3280
83-1	-	390	-	3960	-	20800	-	1180	1770	-	390	-	-	-	10
83-2	-	-	540	1080	-	38300	-	4300	8100	1600	540	-	2150	1100	2160
84-1	-	410	140	690	-	28500	140	140	70	-	70	-	-	-	690
84-2	-	-	-	370	-	8530	-	30	70	-	70	-	-	30	240
86	-	340	110	1450	120	39800	-	-	780	-	220	-	110	-	340
87-1	-	3410	650	4590	220	74060	440	440	7210	-	870	-	-	-	440
87-2	-	-	-	4120	-	258900	-	-	32400	-	1770	-	590	-	-
89-1	410	6780	1850	4930	-	48300	840	410	10060	-	2870	-	-	410	820
89-2	640	960	640	4500	320	156500	320	-	35000	-	9960	-	960	640	1930
90-1	-	110	910	1940	-	8130	-	-	1030	460	230	-	14580	-	460
90-2	-	-	6010	8790	-	37900	-	2310	1850	920	3700	-	37000	-	920
93-1	340	460	3770	460	-	4570	-	230	230	110	460	-	2060	-	910
93-2	-	1400	3300	4300	760	7220	-	130	380	130	380	130	4300	130	1400
94-1	-	850	2600	420	700	840	-	200	70	-	10	70	3600	-	-
94-2	800	2000	1000	2000	800	9800	-	400	1000	800	10	-	5000	-	200
96-1	150	300	2930	2120	620	14200	150	930	2800	-	620	150	2930	150	1550

Table 7.--Group counts, as numbers of organisms per 1000 cubic meters of water strained, HMS Cr. 30 (cont'd)

Station No.	Foraminifera	Radiolaria	Coelenterata	Chaetognaths	Annelida	Copepoda	Ostracoda	Amphipoda	Euphausiacea	Decapoda	Pteropoda	Heteropoda	Tunicata	Fish larvae	Other
96-2	200	-	580	1360	970	3000	-	1260	2520	100	1070	290	4660	190	590
97-1	-	70	190	400	30	1130	250	130	250	40	70	100	70	30	130
97-2	80	140	1060	250	30	1770	30	80	140	170	60	220	220	30	360
99-1	70	130	330	920	-	9350	990	1110	920	400	130	200	70	130	530
99-2	-	300	800	1500	100	8560	600	800	400	630	200	400	400	100	600
100-1	-	50	80	630	30	3560	240	30	340	20	-	50	30	-	170
100-2	40	870	1620	-	-	3000	40	70	250	110	220	180	70	-	220
102-1	-	400	610	1610	-	13100	1210	1410	1610	400	200	400	-	200	-
102-2	120	860	490	3330	250	12460	370	1600	2220	860	250	250	990	990	1480
103-1	-	1080	890	1550	190	9020	270	580	770	150	270	270	620	40	1120
103-2	80	1800	770	930	40	2200	-	40	-	120	40	580	200	-	430
105-1	120	240	1160	1100	-	7860	490	430	980	60	180	-	730	-	790
105-2	320	1180	1260	2840	160	7900	320	630	1500	630	1660	470	1740	240	2210
106-1	240	560	800	850	30	4500	500	240	380	150	320	120	210	-	820
106-2	810	440	500	1750	60	5130	60	190	1000	440	120	120	2500	120	980
108-1	70	250	760	1160	150	3370	580	180	620	180	220	40	150	330	1340
108-2	300	600	900	3080	300	8050	700	1200	1300	390	1000	200	300	300	1800
109-1	240	700	930	1090	200	2780	1130	80	690	240	480	80	240	200	1370
109-2	1540	1200	930	2800	-	9830	220	380	2200	440	710	50	1370	110	1920
111	730	470	860	860	210	8040	680	260	1500	260	1240	40	3160	430	2140
112-1	430	460	850	940	60	5190	460	210	730	270	150	30	580	60	1820
112-2	210	900	1600	3740	-	8100	-	280	140	620	350	70	550	140	1730
114-1	1350	200	1620	1350	200	4380	540	270	1080	340	270	70	200	340	1280
114-2	720	1070	2060	1790	180	7330	1700	540	1250	-	4470	180	980	890	2240

\* - 95 percent by volume radiolarian and diatom "fuzz"

P - present but not countable



# NOTES ON TABLE 8, TABULATED OCEANOGRAPHIC DATA, HMS 30

Where more than one cast was made on a station, they are divided in the observed data by a horizontal line, and the cast number indicated by Roman numerals.

Where the corrected paired protected thermometer readings differed by more than  $0.05^{\circ}\text{C}$ ., the depth and salinity are repeated, and both temperature values are carried.  $\sigma_t$  and  $\delta_t$  calculated using each temperature value are carried.

Weather is recorded in the ww (present weather) code given in the U. S. Weather Bureau circular M, eighth edition, Manual of Marine Meteorological Observations. Cloud coverage is in tenths of sky.

Wind velocity was measured with an anemometer 30 meters above the sea surface. The direction (given to the nearest  $10^{\circ}$ ) is that from which the wind was blowing, measured through  $360^{\circ}$  from north.

In the tabulated interpolated data, values within parentheses indicate extrapolation beyond the depths of observation.

The following abbreviations, when appended to values or lines in the tabulated observed data, have the indicated meanings:

- Q -- The value seems questionable, but was used in construction of the station curve.
- P -- The value is poor, and while carried was not used in drawing the station curve.
- NG -- The value is obviously in error, and is dropped from the tabulations.
- NS -- No water sample was available for this determination.
- PT -- Nansen bottle pretripped, and data are unuseable.



Table 8.--Oceanographic station data, HMS Cr. 30

Station 1: 21°30'N., 158°23'W., July 16, 1955. Messenger time: 0521 GCT.  
 Weather: 02, cloud coverage 1. Wind: 030°, 20 kt. Sea: <1 ft. Wire  
 angle: 16°. BT slide: 1

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	24.76	34.94	-	23.39	450.5
11	24.68	34.99	-	23.45	444.3
26	24.52	34.96	-	23.48	441.9
51	24.06	35.01	-	23.65	425.3
101	21.98	35.16	-	24.36	357.4
207	14.45	34.43	-	25.67	232.9
311	9.62	34.20	-	26.41	162.7
412	7.60	34.13	-	26.67	138.0
514	6.12	34.16	-	26.90	116.7
619	5.54	34.31	-	27.09	98.6
826	4.66	34.49	-	27.33	75.3
1029	3.94	34.49	-	27.41	68.0
1238	3.44	34.52	-	27.48	61.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.76	34.94	23.39	450.4	.000	1.616
10	24.72	34.99	23.44	445.5	.045	1.571
20	24.57	34.97	23.47	442.5	.089	1.527
30	24.49	34.96	23.49	440.9	.133	1.482
50	24.08	35.01	23.64	425.8	.220	1.396
75	22.82	35.10	24.08	384.1	.322	1.293
100	22.02	35.16	24.35	358.5	.415	1.201
150	18.81	35.02	25.10	287.0	.577	1.038
200	14.75	34.45	25.62	237.5	.708	.908
250	11.68	34.30	26.13	189.7	.816	.800
300	9.90	34.21	26.37	166.3	.904	.711
400	7.82	34.14	26.64	140.3	1.058	.558
500	6.29	34.15	26.87	119.3	1.187	.428
600	5.62	34.28	27.05	101.8	1.297	.319
700	5.16	34.40	27.20	87.5	1.390	.226
800	4.78	34.48	27.31	77.3	1.471	.145
1000	4.02	34.49	27.40	68.8	1.616	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 2: 23°06'N., 160°08'W., July 16, 1955. Messenger time: 2114 GCT.  
 Weather: 01, cloud coverage 2. Wind: 090°, 15 kt. Sea: 3-5 ft. Wire  
 angle: 30°. BT slide: 6

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.00	34.74	4.87	23.46	443.0
25	23.97	34.72	4.89	23.46	443.5
52	23.70	34.70	4.95	23.52	437.3
58	23.28	34.70	5.05	23.65	425.5
115	21.81	35.30	5.10	24.52	342.7
200	19.38	35.12	4.65	25.03	293.8
291	14.46	34.42	4.57	25.66	234.1
391	10.27	34.29Q	4.49	26.37	166.3
391	10.65	34.29Q	-	26.30	172.7
488	7.84	34.07	3.81	26.59	145.8
585	6.80	34.18	1.75	26.82	123.6
778	5.26	34.31	.83	27.12	95.3
971	4.50	34.47	.83	27.33	75.2
1156	3.94	34.52	1.09	27.43	65.8

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.00	34.74	23.46	443.0	.000	1.862
10	23.99	34.74	23.47	442.6	.044	1.818
20	23.98	34.73	23.46	443.3	.089	1.773
30	23.96	34.73	23.47	442.5	.133	1.729
50	23.85	34.71	23.49	440.9	.221	1.640
75	22.93	34.76	23.79	411.6	.327	1.535
100	22.05	35.18	24.36	357.7	.423	1.439
150	20.84	35.29	24.77	318.4	.591	1.271
200	19.38	35.12	25.03	293.7	.743	1.119
250	17.13	34.75	25.31	267.2	.884	.978
300	14.00	34.41	25.75	225.4	1.008	.854
400	10.18	34.26	26.36	167.1	1.198	.664
500	7.72	34.07	26.60	144.2	1.352	.510
600	6.63	34.19	26.85	120.7	1.487	.375
700	5.78	34.26	27.02	105.0	1.599	.263
800	5.15	34.33	27.15	92.6	1.697	.165
1000	4.40	34.48	27.35	73.4	1.862	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 4: 23°46'N., 161°41'W., July 17, 1955. Messenger time: 1131 GCT.  
 Weather: 02, cloud coverage not recorded. Wind: 090°, 15 kt. Sea: 5-8 ft.  
 Wire angle: 21°. BT slide: 10

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	23.96	35.16	4.67	23.79	411.6
39	23.98	35.17	4.88	23.80	411.4
77	23.78	35.16	-	23.85	406.3
98	22.51	35.23	4.97	24.27	366.4
147	21.30	35.32	4.90	24.67	327.9
216	19.60	-	4.88	-	-
322	15.01	34.52	4.54	25.62	237.7
436	10.66	34.20	-	26.23	179.3
641	6.17	34.07	2.21	26.82	123.8
746	5.08	34.31	1.64	27.14	93.2
859	4.72	34.34	.92	27.20	87.3
1050	4.06	34.43	.96	27.35	73.7
1223	3.64	34.51	1.20	27.45	63.8

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	23.96	35.16	23.79	411.5	.000	1.944
10	23.96	35.16	23.79	411.5	.041	1.903
20	23.97	35.16	23.79	411.7	.082	1.862
30	23.98	35.17	23.79	411.4	.123	1.821
50	23.98	35.17	23.79	411.4	.205	1.739
75	23.84	35.16	23.83	408.1	.308	1.636
100	22.48	35.24	24.28	364.8	.404	1.540
150	21.24	35.32	24.69	326.2	.576	1.368
200	20.11	35.22	24.92	304.5	.734	1.210
250	18.42	34.98	25.17	280.4	.880	1.064
300	15.84	34.61	25.50	248.8	1.011	.933
400	12.01	34.28	26.05	197.0	1.235	.709
500	9.30	34.13	26.41	162.8	1.410	.534
600	7.09	34.07	26.70	135.4	1.559	.385
700	5.50	34.11	26.93	113.1	1.681	.263
800	4.85	34.32	27.18	90.0	1.774	.170
1000	4.28	34.40	27.30	78.1	1.944	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 5: 24°32'N., 163°23'W., July 18, 1955. Messenger time: first cast 0000 GCT, second cast 0057 GCT. Weather: O2, cloud coverage 2. Wind: 090°, 18 kt. Sea: 3-5 ft. Wire angle: first cast 10°, second cast 15°. BT elide: 11

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(mL/L)	(g/L)	(cl/ton)
0	24.87	35.35	4.72	23.67	423.6
33	24.74	35.41	4.80	23.75	415.9
55	22.74	35.34	5.19	24.29	364.6
70	21.76	35.35	5.15	24.57	337.6
106	20.54	35.26	4.99	24.83	312.5
194	17.62	34.90	4.81	25.31	267.5
338	12.56	34.36	4.78	26.00	201.2
457	9.44	34.13	4.20	26.39	164.9
572	7.31	34.11	2.48	26.70	135.5
684	6.14	34.23	1.37	26.95	111.5
906	4.36	34.36	.81	27.26	81.8
1130	3.68	34.45	1.07	27.40	68.5
1341	3.10	34.51	1.30	27.50	58.8

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.87	35.35	23.66	423.9	.000	1.793
10	24.83	35.38	23.70	420.7	.042	1.751
20	24.79	35.40	23.73	417.9	.084	1.709
30	24.74	35.41	23.75	415.9	.126	1.667
50	24.52	35.41	23.81	409.6	.208	1.584
75	21.59	35.34	24.61	334.0	.296	1.497
100	20.90	35.30	24.77	318.9	.377	1.416
150	19.23	35.11	25.06	290.7	.529	1.264
200	17.36	34.87	25.34	263.8	.666	1.126
250	15.02	34.60	25.68	232.1	.789	1.004
300	13.59	34.46	25.87	213.8	.900	.893
400	10.92	34.22	26.20	182.3	1.098	.695
500	8.60	34.11	26.50	153.8	1.265	.528
600	7.00	34.12	26.75	130.4	1.405	.388
700	6.00	34.24	26.97	109.1	1.525	.267
800	5.11	34.30	27.13	94.4	1.626	.166
1000	4.01	34.40	27.33	75.6	1.793	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 7: 25°20'N., 165°10'W., July 18, 1955. Messenger time: 1524 GCT.  
 Weather: 65, cloud coverage 3. Wind: 100°, 13 kt. Sea: 1-3 ft. Wire  
 angle: 26°. BT slide: 18

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.95	35.26	4.76	23.57	432.8
23	24.97	35.25	4.82	23.56	434.3
51	24.12	35.37	4.97	23.90	401.1
64	22.78	35.34	5.15	24.28	365.6
116	20.26	35.26	5.03	24.91	305.3
190	17.28	34.92	4.99	25.40	258.3
283	14.00	34.49	4.78	25.81	219.5
380	11.75	34.34	4.85	26.14	188.0
474	9.75	34.13	4.46	26.34	169.8
572	7.26	34.09	2.95	26.69	136.0
766	4.98	34.20	1.16	27.07	100.3
959	4.14	34.38	.98	27.30	78.3
1165	3.50	34.49	1.20	27.45	63.9

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.95	35.26	23.57	432.8	.000	1.816
10	24.95	35.26	23.57	432.8	.043	1.772
20	24.96	35.25	23.56	433.8	.087	1.729
30	24.96	35.25	23.56	433.8	.130	1.686
50	24.24	35.36	23.86	405.1	.216	1.599
75	22.04	35.32	24.47	347.4	.309	1.507
100	20.80	35.28	24.78	317.9	.391	1.424
150	18.92	35.11	25.14	283.1	.542	1.274
200	17.19	34.91	25.42	256.7	.675	1.141
250	15.03	34.62	25.69	230.8	.797	1.019
300	13.58	34.46	25.87	213.6	.908	.908
400	11.36	34.30	26.18	184.3	1.104	.712
500	9.12	34.11	26.42	161.4	1.279	.537
600	6.80	34.09	26.75	130.3	1.422	.394
700	5.59	34.15	26.95	111.1	1.542	.274
800	4.80	34.22	27.10	97.0	1.645	.171
1000	4.00	34.40	27.33	75.3	1.816	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 8: 26°00'N., 166°40'W., July 19, 1955. Messenger time: 0411 GCT.  
 Weather: O2, cloud coverage 2. Wind: 090°, 13 kt. Sea: 1-3 ft. Wire  
 angle: 03°. BT slide: 22

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	25.34	35.28	4.79	23.47	442.6
33	25.18	35.32	4.79	23.55	435.2
58	23.40	35.26	5.18	24.04	388.6
78	22.64	35.30	5.15	24.28	364.9
134	21.00	35.32	4.88	24.75	320.0
201	19.54	35.21	4.71	25.06	291.1
321	15.12	35.61	4.82	25.66	233.7
431	11.60	34.29	4.81	26.13	189.2
538	9.36	34.11	4.37	26.38	165.0
649	6.84	34.07	3.02	26.73	132.4
864	4.58	34.23	1.01	27.13	94.0
1076	3.78	34.36	.93	27.32	76.0
1294	3.18	34.51	1.23	27.50	59.4

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.34	35.28	23.47	442.6	.000	1.977
10	25.30	35.30	23.50	440.1	.044	1.933
20	25.21	35.31	23.53	436.8	.088	1.889
30	25.18	35.32	23.55	435.0	.131	1.846
50	23.81	35.27	23.92	399.4	.215	1.762
75	22.76	35.30	24.25	368.0	.311	1.666
100	21.92	35.32	24.50	344.1	.400	1.577
150	20.69	35.31	24.83	312.6	.563	1.444
200	19.58	35.22	25.06	291.3	.714	1.263
250	18.10	35.02	25.28	269.9	.854	1.123
300	16.08	34.74	25.55	244.4	.983	.994
400	12.40	34.35	26.03	199.1	1.203	.774
500	10.18	34.17	26.29	173.5	1.387	.590
600	8.02	34.07	26.56	148.2	1.549	.428
700	6.19	34.10	26.84	121.8	1.681	.296
800	5.13	34.16	27.02	105.1	1.795	.182
1000	4.01	34.31	27.26	82.3	1.977	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 10: 26°21'N., 168°14'W., July 19, 1955. Messenger time: 1555 GCT.  
 Weather: 02, cloud coverage 1. Wind: 100°, 14 kt. Sea: 1-3 ft. Wire  
 angle: 09°. BT slide: 26

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	25.28	35.26	4.79	23.47	442.3
32	25.30	35.28	4.93	23.48	441.5
68	24.02	35.26	5.16	23.64	406.4
94	23.02	35.28	5.15	24.16	376.7
146	21.22	35.30	4.78	24.68	327.2
230	18.88	35.08	4.80	25.13	284.3
344	15.67	34.49P	4.77	25.45	253.8
465	11.59	34.23	4.72	26.09	193.3
580	9.07	34.09	4.35	26.41	162.3
649	7.59	34.00	NS	26.57	147.5
924	4.51	34.23	.82	27.14	93.4
1150	3.59	34.38	1.01	27.36	72.8
1368	3.00	34.49	1.31	27.50	59.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.28	35.26	23.47	442.2	.000	2.105
10	25.28	35.26	23.47	442.2	.044	2.060
20	25.29	35.27	23.48	441.7	.088	2.016
30	25.30	35.28	23.48	441.5	.133	1.972
50	25.30	35.28	23.48	441.5	.221	1.884
75	23.72	35.26	23.94	397.6	.328	1.777
100	22.63	35.30	24.29	364.5	.424	1.681
150	21.11	35.30	24.71	324.3	.595	1.509
200	19.63	35.18	25.02	295.3	.750	1.355
250	18.38	35.01	25.20	277.3	.893	1.212
300	16.98	34.82	25.40	258.9	1.027	1.078
400	13.83	34.44	25.81	219.8	1.267	.838
500	10.74	34.18	26.20	182.3	1.465	.639
600	8.68	34.07	26.46	157.8	1.634	.470
700	6.82	34.01	26.69	136.5	1.781	.323
800	5.71	34.08	26.88	117.8	1.908	.197
1000	4.05	34.29	27.24	84.1	2.105	.000



Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 11: 26°55'N., 169°58'W., July 20, 1955. Messenger time: 0352 GCT.  
 Weather: 02, cloud coverage 2. Wind: 100°, 14 kt. Sea: 1-3 ft. Wire  
 angle: 16°. BT slide: 30

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	25.76	35.43	4.73	23.45	444.3
12	25.76	35.41	4.74	23.44	445.7
27	25.54	35.43	4.75	23.52	438.0
35	24.62	35.39	4.77	23.77	414.0
59	20.45	35.10	5.43	24.74	321.8
59	20.57	35.10	-	24.70	324.9
129	16.47	34.76	5.32	25.47	251.5
202	14.64	34.56	4.94	25.73	227.2
276	12.84	34.38	4.90	25.96	205.0
276	12.76	34.38	-	25.98	203.5
338	11.00	34.27	4.73	26.23	180.0
338	11.09	34.27	-	26.21	181.6
409	9.48	34.16	4.60	26.40	163.2
409	9.60	34.16	-	26.39	165.2
553	6.38	34.00	3.38	26.74	131.7
553	6.48	34.00	-	26.72	132.9
711	4.88	34.05	1.71	26.96	110.6
896	4.05	34.25	.83	27.21	87.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.76	35.43	23.45	444.3	.000	1.680
10	25.76	35.41	23.44	445.8	.044	1.636
20	25.67	35.42	23.47	442.3	.089	1.592
30	25.51	35.43	23.53	436.9	.133	1.548
50	21.19	35.15	24.57	337.2	.209	1.472
75	19.10	34.98	25.00	296.9	.288	1.393
100	17.81	34.88	25.24	273.4	.359	1.322
150	15.86	34.70	25.57	242.8	.487	1.194
200	14.71	34.57	25.72	228.1	.604	1.076
250	13.49	34.45	25.89	212.4	.714	.966
300	12.17	34.34	26.07	195.3	.816	.864
400	9.72	34.18	26.38	165.7	.994	.687
500	7.63	34.05	26.60	144.4	1.149	.531
600	5.81	34.00	26.81	124.9	1.282	.398
700	4.98	34.04	26.94	112.3	1.399	.281
800	4.48	34.12	27.06	101.1	1.505	.175
1000	3.69	34.35	27.32	76.1	1.680	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 13: 27°13'N., 171°30'W., July 20, 1955. Messenger time: 1558 GCT.  
 Weather: 02, cloud coverage 1. Wind: 110°, 10 kt. Sea: <1 ft. Wire  
 angle: 10°. BT slide: 35

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub> <sup>1/</sup>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	25.56	35.32	5.08	23.43	446.4
11	25.56	35.32	5.32	23.43	446.4
27	25.51	35.28	5.20	23.42	447.7
37	22.46	35.12	4.84	24.20	373.0
105	17.63	34.94	4.73	25.33	265.1
215	15.06	34.60	4.69	25.67	233.0
320	12.76	34.33	NG	25.94	207.0
430	10.38	34.33P	NG	26.38	165.2
536	8.42	34.07	NS	26.50	154.1
646	6.28	34.00	3.02	26.75	130.2
864	4.37	34.18	NG	27.12	95.5
PT	-	-	-	-	-
7422/	4.97	34.09	1.80	26.98	108.3

<sup>1/</sup> Order of samples in doubt

<sup>2/</sup> Pretrip but data appear reasonable on station curves

INTERPOLATED			COMPUTED				
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000}$	$-\Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)	
0	25.56	35.32	23.43	446.3	.000	1.754	
10	25.56	35.32	23.43	446.3	.045	1.709	
20	25.55	35.30	23.42	447.5	.089	1.664	
30	24.55	35.20	23.65	425.5	.134	1.620	
50	20.25	35.06	24.76	319.6	.206	1.548	
75	18.92	35.02	25.07	289.6	.281	1.473	
100	17.78	34.96	25.31	266.8	.350	1.404	
150	16.53	34.81	25.49	250.5	.479	1.275	
200	15.40	34.65	25.63	236.5	.600	1.153	
250	14.30	34.52	25.77	223.3	.715	1.038	
300	13.21	34.38	25.89	212.1	.824	.929	
400	10.95	34.20	26.13	184.3	1.013	.740	
500	9.08	34.11	26.43	160.8	1.193	.570	
600	7.23	34.02	26.64	141.2	1.335	.419	
700	5.52	34.04	26.87	118.6	1.464	.289	
800	4.59	34.14	27.06	100.8	1.571	.182	
1000	( 3.86)	(34.31)	(27.27)	( 80.8)	1.754	.000	

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 14: 27°38'N., 173°15'W., July 21, 1955. Messenger time: 0325 GCT.  
 Weather: 03, cloud coverage 8. Wind: 100°, 10 kt. Sea: <1 ft. Wire  
 angle: 13°. BT slide: 39

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	25.58	35.41	4.72	23.49	440.3
16	25.55	35.41	4.75	23.50	439.6
26	23.67	35.28	5.19	23.97	394.5
42	20.54	35.21	5.40	24.30	316.1
80	19.11	35.16	5.30	25.13	284.2
184	18.40	35.07	5.00	25.24	273.6
290	16.76	34.83	5.03	25.46	252.9
407	12.85	34.33	4.87	25.93	208.6
519	10.10	34.16	4.66	26.30	173.1
626	7.42	34.02	NS	26.61	143.7
837	4.90	34.09	1.59	26.99	108.0
1044	3.81	34.29	.84	27.26	81.9
1251	3.33	34.42	1.84P	27.40	68.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.58	35.41	23.49	440.4	.000	1.925
10	25.57	35.41	23.50	440.0	.044	1.881
20	25.30	35.39	23.56	433.6	.088	1.837
30	21.83	35.23	24.46	348.0	.128	1.797
50	20.09	35.21	24.92	304.6	.192	1.733
75	19.15	35.17	25.13	284.2	.266	1.659
100	19.01	35.15	25.15	282.6	.336	1.589
150	18.59	35.10	25.22	275.8	.476	1.449
200	18.23	35.04	25.26	271.5	.613	1.312
250	17.50	34.93	25.36	262.5	.746	1.179
300	16.52	34.80	25.49	249.8	.874	1.051
400	13.09	34.36	25.90	211.2	1.105	.820
500	10.58	34.18	26.23	179.6	1.300	.625
600	8.08	34.05	26.54	150.5	1.464	.461
700	6.51	34.01	26.73	132.6	1.604	.321
800	5.33	34.04	26.90	116.4	1.729	.196
1000	3.99	34.26	27.22	85.7	1.925	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 16: 27°57'N., 175°04'W., July 21, 1955. Messenger time: first cast 1528 GCT, second cast 1555 GCT. Weather: 02, cloud coverage not recorded. Wind: 110°, 15 kt. Sea: <1 ft. Wire angle: first cast 06°, second cast 13°. BT slide: 43

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	25.32	34.97	4.79	23.24	464.5
11	25.33	34.96	4.79	23.23	465.4
27	22.00	34.88	5.36	24.14	378.2
37	20.36	34.81	5.59	24.54	340.5
117	16.29	34.72	5.19	25.49	250.5
234	14.38	34.54	4.95	25.77	223.5
352	12.59	34.36	4.91	26.00	201.7
474	9.86	NS	NS	-	-
583	7.19	34.00	3.93	26.58	146.2
698	5.84	34.00	2.61	26.81	125.2
923	4.12	34.18	.94	27.14	93.2
1147	3.42	34.34	.71	27.34	74.8
1365	2.87	34.45	1.00	27.48	61.3

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.32	34.97	23.24	464.3	.000	1.780
10	25.33	34.96	23.23	465.4	.047	1.733
20	25.33	34.97	23.24	464.6	.093	1.687
30	21.48	34.86	24.28	365.7	.137	1.643
50	18.52	34.77	24.98	298.1	.202	1.578
75	17.59	34.76	25.21	276.8	.274	1.506
100	16.62	34.74	25.42	256.4	.340	1.440
150	15.80	34.68	25.56	243.0	.464	1.315
200	14.94	34.60	25.70	230.4	.583	1.197
250	14.13	34.52	25.81	220.0	.695	1.085
300	13.40	34.44	25.90	211.4	.803	.977
400	11.68	34.29	26.12	190.5	1.005	.775
500	9.30	34.10	26.38	165.0	1.181	.598
600	7.20	34.00	26.63	142.1	1.335	.445
700	5.85	34.00	26.80	125.3	1.468	.312
800	4.98	34.06	26.96	110.8	1.585	.195
1000	3.80	34.24	27.22	85.4	1.780	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 19: 29°02'N., 178°40'W., July 24, 1955. Messenger time: 1612 GCT.  
 Weather: 00, cloud coverage 6. Wind: 160°, 17 kt. Sea: <1 ft. Wire  
 angle: 15°. BT slide: 50

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	25.70	35.17	4.74	23.27	461.3
21	25.72	35.35	4.78	23.40	448.9
39	22.36	35.24	5.29	24.32	361.5
53	20.64	35.13	5.31	24.71	324.7
104	18.24	34.85	5.10	25.12	285.7
211	14.76	34.50	4.80	25.66	233.9
310	13.28	NC	4.82	-	-
418	11.49	34.23	4.71	26.11	191.5
520	9.14	34.04	4.20	26.36	167.0
628	7.34	33.96	3.78	26.57	147.0
839	4.60	34.09	1.67	27.02	104.8
1045	3.74	34.20	.76	27.28	88.1
1258	3.16	34.36	.78	27.38	70.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.70	35.17	23.27	461.2	.000	1.869
10	25.73	35.26	23.33	455.5	.046	1.824
20	25.72	35.35	23.40	448.8	.091	1.778
30	25.72	35.35	23.40	448.8	.136	1.734
50	20.87	35.16	24.67	328.2	.209	1.660
75	19.59	35.00	24.89	307.3	.288	1.580
100	18.53	34.88	25.07	290.2	.363	1.506
150	16.87	34.71	25.34	264.3	.500	1.370
200	15.14	34.54	25.61	239.0	.627	1.243
250	14.18	34.45	25.74	226.0	.742	1.127
300	13.46	34.39	25.85	216.2	.852	1.017
400	11.82	34.26	26.07	195.2	1.058	.811
500	9.60	34.07	26.31	171.9	1.242	.627
600	7.78	33.97	26.52	152.5	1.404	.466
700	6.43	33.97	26.70	134.9	1.547	.322
800	5.09	34.03	26.92	114.4	1.672	.198
1000	3.88	34.19	27.18	90.0	1.869	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 20 (shallow): 30°06'N., 179°54'E., July 25, 1955. Messenger time: 0501 GCT. Weather: 02, cloud coverage 2. Wind: 170°, 11 kt. Sea: <1 ft. Wire angle: 00°. BT slide: 54

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	26.26	35.25	4.66	23.16	472.1
11	26.21	35.26	4.67	23.18	469.9
27	25.65	35.39	4.79	23.46	443.9
42	22.42	35.22	5.31	24.29	364.7
53	21.52	35.14	5.35	24.48	346.5
85	19.02	34.99	5.31	25.02	294.3
132	17.32	34.79	5.16	25.29	268.6
189	16.20	34.64	4.88	25.44	254.4
242	15.24	34.54	4.82	25.58	244.1
322	13.66	34.47	4.83	25.86	214.5
433	11.64	34.35	4.77	26.17	185.4
539	9.50	34.20	4.47	26.43	160.8
650	7.05	34.04	3.96	26.68	137.2

Station 20 (deep): 30°06'N., 179°54'E., July 25, 1955. Messenger time: first cast 0702 GCT, second cast 0740 GCT. Weather: 02, cloud coverage 2. Wind: 170°, 11 kt. Sea: <1 ft. Wire angle: first cast 00°, second cast 00°. BT slide: 54

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
860	4.49	34.13	1.65	27.06	100.6
1074	3.58	34.33	.64	27.32	76.8
1291	3.10	34.42	.62	27.43	65.5
1505	2.72	34.50	.88	27.53	56.3
1724	2.42	34.54	1.23	27.59	50.9
1941	2.12	34.60	1.57	27.66	44.0
2160	1.93	34.61	1.89	27.69	41.7
2436	1.75	34.63	2.22	27.72	38.9
2755	1.64	34.67	2.49	27.75	35.2

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 20: 30°06'N., 179°54'E., July 25, 1955 (cont'd)

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	26.26	35.25	23.16	472.0	.000	1.872
10	26.22	35.26	23.18	470.2	.047	1.825
20	25.94	35.36	23.34	454.7	.094	1.778
30	25.64	35.39	23.46	443.6	.138	1.734
50	21.78	35.16	24.42	351.9	.216	1.656
75	19.75	35.04	24.38	308.5	.298	1.573
100	18.20	34.90	25.16	281.0	.371	1.500
150	16.95	34.74	25.34	263.9	.507	1.365
200	15.76	34.59	25.50	248.7	.636	1.236
250	15.09	34.53	25.61	238.6	.758	1.114
300	14.04	34.48	25.79	221.1	.873	.999
400	12.29	34.39	26.08	193.8	1.079	.793
500	10.31	34.26	26.34	169.4	1.261	.611
600	8.13	34.10	26.57	147.6	1.419	.453
700	6.33	34.02	26.76	129.6	1.556	.316
800	5.19	34.02	26.90	116.3	1.679	.193
1000	3.81	34.26	27.24	84.1	1.872	.000



Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 22: 31°49'N., 179°58'E., July 25, 1955. Messenger time: 2248 GCT.  
 Weather: 02, cloud coverage 2. Wind: 220°, 14 kt. Sea: 1-3 ft. Wire  
 angle: 10°. BT slide: 58

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	25.96	35.12	4.66	23.16	472.5
13	25.84	35.13	4.65	23.20	468.2
24	22.89	35.05	4.91	24.03	389.4
43	19.66	34.91	5.57	24.80	315.7
70	17.85	34.82	5.62	25.19	278.6
157	15.87	34.70	4.92	25.57	242.8
262	14.01	34.50	4.93	25.82	219.0
370	12.66	34.42	4.87	26.03	198.7
474	10.55	34.29	5.03	26.32	171.0
582	8.48	34.13	4.51	26.54	150.5
795	4.95	34.03	2.55	26.94	112.8
1028	3.76	34.25	1.05	27.24	84.3
1267	3.04	34.40	.65	27.42	66.5

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.96	35.12	23.16	472.5	.000	1.796
10	25.86	35.13	23.19	468.8	.047	1.749
20	25.75	35.13	23.23	465.5	.094	1.702
30	21.70	35.00	24.32	361.3	.132	1.564
50	18.66	34.86	25.02	294.7	.198	1.598
75	17.73	34.81	25.21	276.6	.268	1.528
100	17.16	34.78	25.32	265.8	.336	1.460
150	16.02	34.71	25.54	245.4	.463	1.333
200	15.07	34.62	25.68	231.6	.583	1.214
250	14.22	34.52	25.79	221.6	.697	1.099
300	13.55	34.47	25.89	212.2	.805	.991
400	12.11	34.39	26.12	190.7	1.008	.788
500	10.02	34.25	26.38	165.2	1.186	.610
600	8.18	34.11	26.57	147.5	1.341	.455
700	6.45	34.02	26.74	131.1	1.481	.315
800	4.88	34.04	26.95	111.4	1.603	.193
1000	3.85	34.24	27.22	85.9	1.796	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 23: 33°41'N., 180°00', July 26, 1955. Messenger time: 1144 GCT.  
 Weather: 02, cloud coverage not recorded. Wind: 240°, 11 kt. Sea: <1 ft.  
 Wire angle: 11°. BT slide: 62

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	23.38	34.33	5.00	23.34	455.2
11	23.40	34.34	4.98	23.34	455.0
27	22.10	34.35	5.12	23.72	418.9
52	17.44	34.52	5.95	25.06	290.9
104	14.92	34.63	5.12	25.72	227.9
214	13.26	34.48	5.20	25.96	205.7
316	11.57	34.35	5.05	26.19	184.1
425	9.72	34.19	5.20	26.39	164.9
530	7.11	34.02	4.33	26.65	139.5
639	5.53	34.03	3.27	26.86	119.5
853	4.14	34.19	1.32	27.15	92.5
1065	3.37	34.14	.64	27.19	89.1
1277	2.88	34.43	.53	27.46	62.9

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	23.38	34.33	23.34	455.2	.000	1.624
10	23.40	34.34	23.34	455.0	.046	1.578
20	23.39	34.34	23.34	454.6	.091	1.533
30	21.87	34.36	23.79	411.9	.134	1.489
50	18.10	34.49	24.98	308.4	.212	1.411
75	15.95	34.68	25.53	246.0	.279	1.345
100	15.00	34.64	25.71	228.9	.338	1.286
150	14.23	34.57	25.82	218.3	.450	1.174
200	13.46	34.50	25.93	208.2	.556	1.067
250	12.62	34.43	26.05	197.1	.658	.966
300	11.83	34.37	26.15	187.2	.754	.870
400	10.17	34.23	26.34	169.1	.932	.692
500	7.82	34.06	26.58	146.2	1.091	.533
600	6.09	34.01	26.78	127.3	1.227	.397
700	4.98	34.06	26.96	110.8	1.343	.281
800	4.40	34.15	27.09	98.2	1.448	.176
1000	3.58	34.30	27.29	79.0	1.624	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 24: 35°16'N., 179°55'W., July 27, 1955. Messenger time: 0120 GCT.  
 Weather: 51, cloud coverage 8. Wind: 230°, 21 kt. Sea: 1-3 ft. Wire  
 angle: 15°. BT slide: 66

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	22.28	34.40	5.05	23.71	420.0
17	20.38	34.36	5.36	24.19	373.5
31	18.32	34.46	5.70	24.80	316.0
51	16.30	34.61	5.87	25.40	258.8
113	14.35	34.52	5.08	25.76	224.3
225	12.68	34.40	5.10	26.01	200.6
337	11.02	34.29	5.27	26.24	178.8
457	9.12	34.15	5.05	26.45	158.5
567	7.08	33.98	4.72	26.63	142.2
683	5.21	33.97	3.33	26.86	120.4
906	4.02	34.15	1.42	27.13	94.4
1130	3.36	34.34	.78	27.35	74.0
1343	2.86	34.42	.50	27.46	63.5

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	22.28	34.40	23.71	420.0	.000	1.611
10	22.28	34.40	23.71	420.0	.042	1.569
20	19.35	34.39	24.48	345.8	.083	1.529
30	18.50	34.45	24.75	320.8	.116	1.495
50	16.39	34.60	25.37	261.6	.173	1.438
75	15.28	34.60	25.62	237.6	.235	1.376
100	14.62	34.54	25.72	228.2	.293	1.318
150	13.74	34.47	25.85	215.9	.404	1.207
200	13.06	34.42	25.95	206.2	.509	1.102
250	12.32	34.38	26.07	195.3	.609	1.002
300	11.59	34.33	26.17	186.0	.705	.906
400	10.02	34.22	26.36	167.5	.881	.730
500	8.32	34.08	26.52	151.9	1.040	.571
600	6.53	33.97	26.69	136.0	1.185	.426
700	5.05	33.98	26.88	117.9	1.312	.300
800	4.49	34.06	27.01	105.9	1.423	.189
1000	3.68	34.25	27.24	83.6	1.611	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 25: 37°15'N., 179°50'W., July 27, 1955. Messenger time: first cast 1550 GCT, second cast 1657 GCT. Weather: 02, cloud coverage 8. Wind: 220°, 09 kt. Sea: 3-5 ft. Wire angle: first cast 05°, second cast 05°. BT slide: 71

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	20.28	34.31	5.19	24.18	374.5
10	20.30	34.34	5.24	24.20	373.0
26	17.84	34.43	5.70	24.89	306.8
56	15.04	34.48	5.77	25.58	241.4
110	13.48	34.46	5.08	25.90	211.7
153	12.74	34.39	5.21	25.99	202.5
287	10.58	34.12P	5.36	26.18	184.1
PT	-	-	-	-	-
572	4.90	33.95	3.28	26.88	118.4
687	4.34	34.05	2.07	27.02	105.1
910	3.72	34.23	1.10	27.22	85.6
1133	3.14	34.33	.68	27.36	72.8

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	20.28	34.31	24.18	374.6	.000	1.473
10	20.30	34.34	24.20	372.9	.037	1.436
20	20.29	34.35	24.21	371.9	.075	1.399
30	16.57	34.47	25.23	274.9	.111	1.362
50	15.35	34.48	25.51	248.9	.164	1.310
75	14.40	34.48	25.72	228.3	.223	1.250
100	13.70	34.47	25.86	215.2	.278	1.195
150	12.80	34.39	25.98	203.5	.382	1.091
200	12.01	34.34	26.10	192.5	.481	.992
250	11.19	34.29	26.21	181.8	.575	.898
300	10.36	34.23	26.31	172.3	.663	.810
400	8.54	34.10	26.50	153.7	.826	.647
500	6.45	33.96	26.69	135.7	.972	.501
600	4.67	33.97	26.92	114.7	1.095	.378
700	4.28	34.07	27.04	103.0	1.203	.270
800	4.00	34.16	27.14	93.5	1.301	.172
1000	3.44	34.28	27.29	79.3	1.473	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 26: 38°48'N., 179°52'W., July 28, 1955. Messenger time: 0425 GCT.  
 Weather: 25, cloud coverage 8. Wind: 230°, 09 kt. Sea: 1-3 ft. Wire  
 angle: 18°. BT slide: 75

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	20.74	34.28	5.25	24.04	388.6
17	20.46	34.33	5.27	24.15	377.9
31	17.94	34.56	5.74	24.97	299.6
50	16.08	34.57	5.58	25.42	256.7
103	14.64	34.51	5.16	25.69	230.9
208	12.74	34.38	5.36	25.98	203.2
307	11.02	34.27	5.29	26.22	180.3
413	8.94	34.12	4.78	26.46	158.0
514	6.83	33.96	4.30	26.64	140.5
619	5.02	33.91	3.46	26.83	122.9
828	4.00	34.07	1.52	27.07	100.2
1031	3.46	34.24	.97	27.26	82.3
1241	2.97	34.33	.77	27.38	71.1

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	20.74	34.28	24.03	388.8	.000	1.565
10	20.71	34.29	24.05	387.2	.039	1.527
20	19.86	34.40	24.36	357.6	.077	1.489
30	18.08	34.55	24.93	303.6	.110	1.455
50	16.08	34.57	25.42	256.7	.165	1.401
75	15.10	34.54	25.61	238.2	.226	1.340
100	14.69	34.51	25.68	231.8	.284	1.281
150	13.92	34.46	25.80	220.2	.398	1.168
200	12.90	34.39	25.96	205.4	.504	1.062
250	12.04	34.34	26.09	193.1	.603	.962
300	11.17	34.28	26.20	182.2	.697	.868
400	9.21	34.14	26.43	160.6	.868	.698
500	7.14	33.97	26.61	144.0	1.020	.546
600	5.40	33.91	26.79	127.0	1.154	.411
700	4.45	33.97	26.94	112.4	1.272	.293
800	4.08	34.05	27.05	102.4	1.380	.186
1000	3.59	34.22	27.23	85.0	1.565	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 28 (shallow): 40°19'N., 179°54'W., July 28, 1955. Messenger time: 1648 GCT. Weather: 02, cloud coverage 6. Wind: 220°, 21 kt. Sea: 3-5 ft. Wire angle: 10°. BT slide: 79

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	18.96	34.06	5.48	24.33	360.2
11	18.98	34.06	5.46	24.33	360.5
27	18.30	34.12	5.61	24.54	340.1
37	15.26	34.28	6.18	25.38	260.5
73	12.60	34.36	5.44	26.00	202.0
116	11.51	34.31	5.29	26.16	186.1
173	10.55	34.22	5.64	26.27	176.1
231	9.48	34.12	5.75	26.37	166.4
288	8.76	34.07	5.00	26.45	159.0
348	7.52	33.96	5.08	26.55	149.7
468	5.46	33.89	3.92	26.76	129.0
581	4.46	33.96	2.55	26.93	113.1
698	4.14	34.09	1.69	27.07	100.0

Station 28 (deep): 40°19'N., 179°54'W., July 28, 1955. Messenger time: 1840 GCT. Weather: 02, cloud coverage 6. Wind: 220°, 21 kt. Sea: 3-5 ft. Wire angle: 11°. BT slide: 79

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
801	3.84	34.22	1.27	27.20	87.4
917	3.52	34.31	.91	27.31	77.7
1033	3.22	34.33	.68	27.35	73.5
1148	2.98	34.36	.85	27.40	68.9
1381	2.66	34.45	.64	27.50	59.7
1613	2.36	34.51	.84	27.57	52.7
1845	2.14	34.58	1.07	27.64	45.7
2079	1.98	34.60	1.37	27.67	42.8
2314	1.84	34.61	1.67	27.69	41.1

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 28: 40°19'N., 179°54'W., July 28, 1955 (cont'd)

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	18.96	34.06	24.33	360.3	.000	1.364
10	18.98	34.06	24.33	360.7	.036	1.328
20	18.89	34.06	24.35	358.6	.072	1.292
30	17.59	34.16	24.75	320.4	.107	1.258
50	13.49	34.35	25.81	219.9	.157	1.208
75	12.54	34.36	26.01	200.9	.209	1.155
100	11.81	34.33	26.12	189.9	.258	1.106
150	10.94	34.26	26.23	179.6	.350	1.014
200	10.05	34.17	26.32	171.6	.438	.927
250	9.24	34.10	26.39	164.1	.521	.843
300	8.52	34.05	26.47	157.1	.602	.763
400	6.51	33.92	26.65	139.6	.750	.614
500	5.12	33.89	26.80	125.3	.882	.482
600	4.39	33.97	26.95	111.6	1.000	.364
700	4.13	34.10	27.08	99.2	1.108	.256
800	3.88	34.21	27.19	88.3	1.206	.158
1000	3.35	34.32	27.33	75.4	1.364	.000



Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 29: 41°50'N., 179°54'W., July 29, 1955. Messenger time: 0611 GCT.  
 Weather: 45, cloud coverage not recorded. Wind: 200°, 24 kt. Sea: 5-8 ft.  
 Wire angle: 40°. BT slide: 83

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	16.55	33.95	5.68	24.83	312.5
17	16.36	33.97	5.82	24.89	307.0
28	11.72	34.02	6.71	25.90	211.0
38	11.24	34.04	6.50	26.00	201.2
89	8.47	33.89	6.35	26.35	168.1
175	7.98	33.93	6.18	26.46	158.0
264	6.70	33.86	5.42	26.58	146.2
359	5.65	33.88	4.36	26.73	131.9
449	4.78	33.88	3.62	26.83	122.4
541	4.28	33.97	2.62	26.96	110.8
724	3.88	34.16	1.28	27.15	92.2
908	3.40	34.25	.87	27.27	81.1
1087	3.05	34.34	.72	27.38	71.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	16.55	33.95	24.83	312.5	.000	1.237
10	16.43	33.96	24.87	309.1	.031	1.206
20	16.30	33.97	24.90	305.8	.062	1.175
30	11.61	34.02	25.92	209.1	.086	1.151
50	10.67	34.00	26.08	194.1	.126	1.111
75	9.88	34.00	26.21	181.3	.173	1.064
100	8.12	33.87	26.39	164.6	.216	1.021
150	8.28	33.96	26.44	160.1	.297	.940
200	7.62	33.91	26.49	154.9	.376	.861
250	6.92	33.87	26.56	148.6	.451	.786
300	6.24	33.86	26.64	140.5	.523	.714
400	5.24	33.88	26.78	127.4	.657	.580
500	4.47	33.92	26.90	116.4	.780	.457
600	4.10	34.07	27.06	101.1	.889	.348
700	3.92	34.16	27.15	92.6	.985	.252
800	3.65	34.21	27.22	86.3	1.074	.163
1000	3.20	34.30	27.33	75.5	1.237	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 31: 43°18'N., 179°56'W., July 29, 1955. Messenger time: 1845 GCT.  
 Weather: 45, cloud coverage 9. Wind: 180<sup>t</sup>, 21 kt. Sea: 3-5 ft. Wire  
 angle: 05° BT slide: 87

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	15.59	33.93	5.93	25.04	293.2
11	15.60	33.93	5.88	25.04	293.3
21	14.54	33.98	6.21	25.30	267.7
32	12.06	34.14	6.38	25.93	208.2
116	9.52	34.13	5.97	26.37	166.2
232	7.87	33.98	5.78	26.51	152.9
347	6.05	33.93	4.68	26.72	133.0
468	4.84	33.95	3.24	26.88	117.9
584	4.35	34.05	2.08	27.02	105.2
699	3.98	34.16	1.45	27.14	93.2
927	3.32	34.31	.87	27.33	75.8
1153	2.96	34.38	.69	27.42	67.3
1370	2.65	34.47	.74	27.51	58.1

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	15.59	33.93	25.04	293.1	.000	1.221
10	15.60	33.93	25.03	293.4	.029	1.192
20	15.20	33.95	25.14	283.4	.059	1.163
30	12.30	34.13	25.88	213.3	.082	1.139
50	11.06	34.17	26.14	188.5	.122	1.100
75	10.28	34.17	26.28	175.3	.167	1.055
100	9.79	34.15	26.34	168.9	.210	1.012
150	9.01	34.09	26.42	161.3	.292	.929
200	8.32	34.02	26.48	156.3	.372	.850
250	7.59	33.97	26.54	149.8	.448	.773
300	6.77	33.94	26.64	141.1	.521	.700
400	5.49	33.94	26.80	125.7	.653	.568
500	4.65	33.97	26.92	114.4	.773	.449
600	4.25	34.07	27.04	102.7	.881	.341
700	3.98	34.16	27.14	93.1	.981	.241
800	3.63	34.25	27.25	83.2	1.068	.153
1000	3.15	34.34	27.37	72.1	1.221	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 32: 44°56'N., 179°49'W., July 30, 1955. Messenger time: 0613 GCT.  
 Weather: 03, cloud coverage 7. Wind: 210°, 09 kt. Sea: 3-5 ft. Wire  
 angle: 17°. BT slide: 91

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
3	13.05	33.24	6.19	25.04	292.5
15	12.52	33.30	6.30	25.19	278.2
28	8.88	33.44	6.97	25.94	207.5
42	7.90	33.48	6.99	26.12	190.6
108	5.97	33.49	6.90	26.39	164.8
211	6.16	33.75	6.09	26.57	147.9
313	4.90	33.89	4.13	26.83	122.9
420	4.22	33.95	2.75	26.96	111.6
521	4.02	34.07	1.80	27.07	100.4
628	3.80	34.20	1.30	27.19	88.5
839	3.38	34.29	.82	27.30	77.9
1046	2.97	34.42	.73	27.45	64.3
1256	2.66	34.47	.77	27.51	58.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	(13.07)	(33.24)	(25.04)	(292.9)	.000	1.143
10	12.92	33.25	25.08	289.5	.029	1.114
20	11.06	33.38	25.53	246.7	.057	1.086
30	8.74	33.45	25.97	204.8	.079	1.064
50	7.59	33.48	26.16	186.2	.118	1.025
75	7.04	33.48	26.24	179.1	.163	.980
100	6.18	33.48	26.35	168.3	.206	.936
150	5.62	33.53	26.46	157.9	.287	.856
200	5.98	33.69	26.54	150.0	.363	.780
250	6.64	33.89	26.61	143.3	.436	.707
300	5.22	33.89	26.79	126.4	.504	.639
400	4.28	33.94	26.93	113.0	.620	.522
500	4.08	34.03	27.03	103.9	.729	.414
600	3.87	34.17	27.16	91.4	.824	.319
700	3.66	34.22	27.22	85.7	.912	.231
800	3.45	34.26	27.27	80.8	.995	.148
1000	3.03	34.39	27.42	67.2	1.143	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 34: 46°08'N., 179°55'W., July 30, 1955. Messenger time: 1753 GCT.  
 Weather: 50, cloud coverage 9. Wind: 300<sup>s</sup>, 08 kt. Sea: 1-3 ft. Wire  
 angle: 25°. BT slide: 95

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	11.26	32.99	5.74	25.19	278.8
24	8.18	33.26	7.06	25.90	210.8
42	6.58	33.30	6.95	26.16	186.7
57	6.26	33.30	7.04	26.20	182.8
99	4.81	33.39	7.17	26.44	159.6
207	4.42	33.66	6.28	26.70	135.3
310	4.01	33.82	3.74	26.87	119.2
420	3.96	34.00	2.42	27.02	105.0
522	3.86	34.09	1.62	27.10	97.3
626	3.64	34.22	1.15	27.22	85.6
832	3.30	34.31	.85	27.33	75.6
1041	2.68	34.40	.71	27.44	66.1
1245	2.61	34.47	.80	27.52	57.8

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	11.26	32.99	25.19	278.8	.000	1.090
10	10.04	33.05	25.44	254.3	.027	1.063
20	8.69	33.23	25.80	220.1	.050	1.039
30	7.50	33.28	26.02	199.9	.071	1.019
50	6.39	33.30	26.19	184.0	.109	.981
75	5.98	33.31	26.24	178.3	.154	.936
100	4.80	33.40	26.45	158.7	.196	.894
150	4.43	33.48	26.55	149.1	.272	.817
200	4.39	33.53	26.60	144.8	.313	.747
250	4.62	33.73	26.73	132.1	.410	.680
300	4.19	33.79	26.83	123.1	.474	.616
400	3.97	34.00	27.02	105.0	.588	.502
500	3.93	34.04	27.05	101.8	.690	.399
600	3.72	34.18	27.18	89.3	.783	.306
700	3.54	34.25	27.26	82.4	.868	.222
800	3.35	34.29	27.31	77.6	.948	.142
1000	3.00	34.38	27.41	67.7	1.090	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 35: 47°41'N., 179°39'W., July 31, 1955. Messenger time: 0511 GCT.  
 Weather: 02, cloud coverage 7. Wind: 360°, 06 kt. Sea: <1 ft. Wire  
 angle: 03°. BT slide: 99

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	10.48	32.90	6.98	25.25	272.6
8	9.88	32.90	7.04	25.35	262.9
19	8.24	33.09	7.33	25.76	224.3
40	5.83	33.16	7.41	26.14	188.0
67	4.50	33.20	7.34	26.33	170.6
119	3.70	33.28	7.20	26.47	156.9
220	3.86	33.77	4.16	26.84	121.5
323	3.66	33.90	2.64	26.97	109.9
435	3.76	34.05	1.74	27.08	99.4
542	3.64	34.13	1.23	27.15	92.3
758	3.17	34.27	.80	27.31	77.5
1029	2.80	34.40	.77	27.45	64.5
1299	2.47	34.46	.84	27.52	57.3

INTERPOLATED			COMPUTED				
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000}$	$-\Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)	
0	10.48	32.90	25.26	272.2	.000	1.057	
10	9.65	32.90	25.39	259.1	.027	1.030	
20	8.13	33.10	25.78	222.1	.051	1.006	
30	6.45	33.14	26.05	196.9	.071	.985	
50	5.00	33.18	26.26	177.1	.109	.948	
75	4.44	33.21	26.34	169.4	.152	.905	
100	3.77	33.27	26.45	158.3	.192	.864	
150	3.67	33.31	26.50	154.3	.271	.786	
200	3.40	33.52	26.69	136.1	.345	.712	
250	3.96	33.78	26.84	121.6	.406	.651	
300	3.75	33.86	26.93	113.6	.463	.593	
400	3.70	33.93	26.99	107.9	.571	.486	
500	3.70	34.10	27.12	95.1	.669	.388	
600	3.54	34.18	27.20	87.7	.760	.296	
700	3.22	34.25	27.29	79.5	.844	.212	
800	3.05	34.35	27.38	70.4	.923	.134	
1000	2.93	34.39	27.43	66.3	1.057	.000	

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 37 (shallow): 49°34'N., 179°58'W., July 31, 1955. Messenger time: 2005 GCT. Weather: O2, cloud coverage 8. Wind: 200°, 08 kt. Sea: 0. Wire angle: 00°. BT slide: 103

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	9.28	32.83	7.42	25.40	258.8
5	8.45	32.83	7.46	25.53	246.6
11	7.90	32.83	7.45	25.60	239.1
31	7.46	32.83	7.30	25.67	232.9
38	6.44	32.91	6.98	25.87	214.0
52	5.24	33.04	6.67	26.12	190.3
62	4.44	33.15	6.44	26.29	173.9
78	4.19	33.26	5.58	26.41	163.0
130	3.56	33.36	5.01	26.51	153.1
208	3.88	33.49	4.40	26.62	142.8
313	3.95	33.77	2.44	26.84	122.3
418	3.62	33.96	1.39	27.02	105.0
523	3.65	34.11	.77	27.13	94.1

Station 37 (deep): 49°34'N., 179°58'W., July 31, 1955. Messenger time: 2200 GCT. Weather: O2, cloud coverage 8. Wind: 200°, 08 kt. Sea: 0. Wire angle: 21°. BT slide: 103

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
604	3.50	34.16	.77	27.19	88.8
813	3.17	34.29	.56	27.32	76.0
1012	2.90	34.36	.55	27.40	68.3
1217	2.60	34.42	.79	27.48	61.4
1431	2.34	34.48	.83	27.55	54.3
1641	2.14	34.52	1.06	27.60	50.2
1855	2.02	34.56	1.59	27.64	46.1
2077	1.90	34.58	1.28F	27.66	43.8
2302	1.80	34.61	1.99	27.70	40.7

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 37: 49°34'N., 179°58'W., July 31, 1955 (cont'd)

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	9.28	32.83	25.40	258.9	.000	1.101
10	7.99	32.83	25.60	239.9	.025	1.076
20	7.62	32.83	25.65	235.1	.048	1.053
30	7.45	32.83	25.67	232.9	.072	1.029
50	5.35	33.03	26.10	192.2	.114	.987
75	4.20	33.27	26.41	162.3	.159	.942
100	4.02	33.35	26.49	154.7	.199	.902
150	3.92	33.47	26.60	144.6	.276	.825
200	3.88	33.48	26.61	143.7	.349	.752
250	3.88	33.65	26.75	130.8	.419	.682
300	3.92	33.74	26.82	124.2	.484	.617
400	3.68	33.91	26.97	109.2	.600	.501
500	3.64	34.10	27.13	94.6	.702	.399
600	3.48	34.15	27.18	89.4	.794	.308
700	3.27	34.21	27.25	82.8	.878	.223
800	3.16	34.30	27.33	75.1	.956	.145
1000	2.90	34.36	27.40	68.3	1.101	.000



Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 38: 49°30'N., 177°19'W., August 1, 1955. Messenger time: first cast 1148 GCT, second cast 1235 GCT. Weather: 02, cloud coverage not recorded. Wind: 060°, 07 kt. Sea: 0. Wire angle: first cast 03°, second cast 00°. BT slide: 107

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	9.53	32.69	6.92	I 25.25	272.9
16	7.97	32.77	7.09	II 25.55	244.0
32	6.50	32.92	6.98	I 25.87	213.9
66	3.88	33.13	6.31	26.33	169.9
119	3.44	33.40	4.59	26.59	145.4
219	3.62	33.86	1.88	26.94	112.2
323	3.38	33.96	1.41	27.04	102.8
433	3.36	34.06	1.00	27.12	95.0
541	3.34	34.18	.80	27.22	85.9
651	3.16	34.25	.66	27.30	78.8
870	2.88	34.34	.54	27.39	69.7
1081	2.61	34.42	.65	27.48	61.7
1299	2.37	34.47	.83	27.54	55.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	9.53	32.69	25.25	273.0	.000	1.005
10	8.22	32.75	25.50	249.4	.026	.979
20	7.53	32.81	25.64	235.4	.050	.955
30	6.75	32.90	25.82	218.5	.073	.932
50	4.88	33.01	26.13	188.9	.113	.892
75	3.73	33.16	26.37	166.1	.157	.848
100	3.62	33.32	26.51	153.1	.196	.809
150	3.62	33.70	26.81	124.5	.266	.739
200	3.63	33.83	26.91	114.8	.325	.680
250	3.51	33.91	26.99	107.6	.381	.624
300	3.40	33.94	27.02	104.4	.434	.572
400	3.37	34.03	27.10	97.3	.534	.472
500	3.35	34.12	27.17	90.4	.626	.379
600	3.20	34.22	27.27	81.5	.711	.294
700	3.10	34.26	27.31	77.6	.790	.215
800	2.99	34.29	27.34	74.3	.866	.139
1000	2.72	34.38	27.44	65.4	1.005	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 39: 49°30'N., 175°04'W., August 1, 1955. Messenger time: 2322 GCT.  
 Weather: 28, cloud coverage 9. Wind: 200°, 13 kt. Sea: <1 ft. Wire  
 angle: 18°. BT slide: 111

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	9.66	32.68	7.03	25.22	275.5
25	7.78	32.94	7.09	25.71	229.0
39	6.56	32.94	7.05	25.88	213.1
65	5.24	32.99	7.18	26.08	194.1
120	3.55	33.12	7.25	26.36	167.6
206	3.26	33.69	4.39	26.84	122.0
307	3.31	33.87	2.47	26.98	108.9
412	3.60	34.00	1.56	27.05	101.8
514	3.56	34.10	1.06	27.13	93.8
619	3.41	34.19	.88	27.22	85.7
829	3.08	34.28	.72	27.33	75.8
1033	2.82	34.35	.82	27.40	68.5
1246	2.57	34.42	.75	27.48	61.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	9.66	32.68	25.22	275.7	.000	1.085
10	8.90	32.83	25.46	253.2	.027	1.058
20	8.08	32.93	25.66	234.0	.051	1.034
30	7.40	32.94	25.76	224.0	.074	1.011
50	6.04	32.95	25.95	206.3	.116	.969
75	5.00	33.00	26.11	190.8	.165	.920
100	4.10	33.06	26.26	177.2	.211	.874
150	3.15	33.36	26.59	145.9	.293	.791
200	3.21	33.60	26.77	128.5	.365	.720
250	3.28	33.78	26.91	115.5	.426	.659
300	3.31	33.83	26.95	111.9	.483	.602
400	3.60	33.99	27.05	102.3	.585	.499
500	3.58	34.08	27.12	95.6	.683	.401
600	3.45	34.16	27.19	88.3	.773	.311
700	3.35	34.21	27.24	83.7	.858	.226
800	3.19	34.25	27.29	79.2	.940	.145
1000	2.85	34.34	27.39	69.5	1.085	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 40 (shallow): 49°25'N., 172°35'W., August 2, 1955. Messenger time: 1146 GCT. Weather: 02, cloud coverage 8. Wind: 240°, 16 kt. Sea: 3-5 ft. Wire angle: 11°. BT slide: 115

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	9.70	32.57	6.94	25.13	284.4
11	9.46	32.61	6.93	25.20	277.8
20	8.20	32.69	7.05	25.45	253.5
41	6.31	32.84	7.11	25.83	217.9
85	4.22	33.05	7.17	26.24	179.1
106	3.50	33.13	7.19	26.37	166.4
142	3.16	33.19	7.04	26.45	158.9
183	3.34	33.44	5.36	26.62	143.1
224	3.36	33.70	3.54	26.84	122.2
317	3.50	33.95	1.79	27.02	104.5
427	3.56	34.08	1.13	27.12	95.4
533	3.47	34.14	.97	27.18	89.9
643	3.31	34.25	.83	27.28	80.4

Station 40 (deep): 49°25'N., 172°35'W., August 2, 1955. Messenger time: 1322 GCT. Weather: 45, cloud coverage 8. Wind: 230°, 17 kt. Sea: 3-5 ft. Wire angle: 27°. BT slide: 115

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
793	3.10	34.31	.61	27.35	73.8
890	2.96	34.33	.65	27.38	71.0
989	2.84	34.36	.65	27.41	67.8
1191	2.58	34.43	.70	27.49	60.4
1392	2.36	34.49	.82	27.56	54.0
1604	2.17	34.52	1.02	27.60	50.3
1810	2.04	34.57	1.25	27.65	45.4
2031	1.92	34.60	1.56	27.68	42.6
2296	1.80	34.63	1.91	27.71	39.2

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 40: 49°25'N., 172°35'W., August 2, 1955 (cont'd)

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	9.70	32.57	25.13	284.4	.000	1.066
10	9.63	32.58	25.14	282.8	.028	1.038
20	8.20	32.69	25.45	253.6	.055	1.012
30	7.33	32.76	25.63	236.6	.079	.987
50	6.03	32.86	25.88	212.9	.124	.943
75	4.42	33.02	26.19	183.7	.173	.894
100	3.58	33.11	26.34	169.7	.217	.849
150	3.14	33.20	26.46	157.9	.298	.768
200	3.35	33.58	26.74	131.1	.371	.666
250	3.39	33.75	26.87	118.7	.432	.635
300	3.48	33.92	27.00	106.8	.488	.578
400	3.52	33.99	27.05	101.5	.590	.476
500	3.49	34.12	27.16	91.7	.684	.383
600	3.40	34.20	27.23	84.9	.772	.294
700	3.21	34.29	27.32	76.3	.851	.215
800	3.08	34.31	27.35	73.7	.926	.140
1000	2.85	34.35	27.40	68.7	1.066	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 41: 48°03'N., 172°34'W., August 3, 1955. Messenger time: 0155  
 GCT. Weather: 45, cloud coverage 9. Wind: 220°, 21 kt. Sea: 3-5 ft.  
 Wire angle: 32°. BT slide: 119

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	10.86	32.86	7.18	25.16	281.8
17	10.83	32.85	6.92	25.16	281.9
25	10.24	32.88	6.88	25.28	270.1
35	9.69	32.97	6.80	25.44	254.6
50	9.20	32.95	6.73	25.50	248.8
76	5.70	33.13	6.71	26.13	188.8
190	4.20	33.53	5.87	26.62	142.9
340	3.86	33.91	2.41	26.96	111.0
432	3.83	34.04	1.63	27.06	100.8
587	3.65	34.19	1.00	27.20	87.7
784	3.24	34.26	.74	27.30	78.8
984	2.89	34.34	.67	27.39	69.8
1184	2.64	34.45	.72	27.50	59.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	10.86	32.86	25.16	281.8	.000	1.123
10	10.84	32.85	25.15	282.1	.028	1.095
20	10.79	32.85	25.16	281.1	.056	1.066
30	9.92	32.95	25.39	259.8	.083	1.039
50	9.20	32.95	25.50	248.9	.134	.989
75	5.80	33.12	26.12	190.5	.189	.934
100	4.98	33.24	26.31	172.4	.234	.889
150	4.36	33.45	26.54	150.7	.314	.809
200	4.19	33.57	26.65	139.8	.387	.736
250	4.00	33.79	26.85	121.3	.452	.671
300	3.90	33.94	26.98	109.0	.511	.612
400	3.84	34.00	27.03	103.9	.621	.502
500	3.80	34.11	27.12	95.2	.720	.403
600	3.63	34.20	27.21	86.9	.811	.312
700	3.45	34.22	27.24	83.8	.896	.227
800	3.21	34.26	27.30	76.8	.977	.146
1000	2.85	34.37	27.42	67.2	1.123	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 43: 46°31'N., 172°34'W., August 3, 1955. Messenger time: 1436  
 GCT. Weather: 01, cloud coverage 9. Wind: 290°, 18 kt. Sea: 1-3 ft.  
 Wire angle: 26°. BT slide: 123

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	12.72	33.03	6.40	24.94	302.0
13	12.48	33.03	6.42	24.99	297.6
26	9.98	33.13	6.79	25.52	247.2
26	10.08	33.13	-	25.50	249.1
42	6.04	33.33	7.06	26.25	177.9
59	5.63	33.33	7.01	26.30	173.0
162	5.25	33.73	5.67	26.66	138.8
202	5.12	33.77	5.37	26.71	134.3
305	4.50	33.82	3.86	26.82	124.1
372	4.15	33.90	2.78	26.92	114.6
447	3.92	33.96	2.07	26.99	107.8
595	3.80	34.16	1.25	27.16	91.6
740	3.46	34.24	.90	27.26	82.3
900	3.11	34.31	.85	27.35	73.9

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	12.72	33.03	24.94	302.0	.000	1.117
10	12.67	33.03	24.95	301.1	.030	1.086
20	11.72	33.06	25.16	281.6	.059	1.057
30	7.30	33.28	26.05	197.2	.086	1.031
50	5.79	33.33	26.29	174.5	.122	.995
75	5.23	33.41	26.41	162.4	.165	.950
100	5.24	33.49	26.47	156.7	.205	.911
150	5.24	33.69	26.63	141.5	.279	.838
200	5.13	33.76	26.70	135.1	.348	.769
250	5.50	33.86	26.73	131.8	.414	.702
300	4.57	33.82	26.81	124.8	.479	.638
400	4.00	33.92	26.95	111.6	.598	.519
500	3.89	34.04	27.06	101.4	.704	.413
600	3.79	34.16	27.16	91.3	.800	.317
700	3.59	34.22	27.23	85.1	.887	.230
800	3.35	34.26	27.28	79.9	.969	.147
1000	( 2.82)	(34.36)	(27.41)	( 67.7)	1.117	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 44: 45°05'N., 172°30'W., August 4, 1955. Messenger time: 0457  
 GCT. Weather: 02, cloud coverage 8. Wind: 260°, 13 kt. Sea: 1-3 ft.  
 Wire angle: 13°. BT slide: 127

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	16.23	33.19	6.85	24.32	361.0
11	16.04	33.21	6.94	24.38	355.4
20	13.94	33.22	7.00	24.85	311.4
31	9.23	33.44	6.11	25.88	213.0
62	6.64	33.37	5.94	26.20	182.2
114	6.51	33.48	5.91	26.31	172.4
227	6.60	33.82	5.88	26.56	148.0
339	5.02	33.87	4.04	26.80	125.8
458	4.34	33.98	2.52	26.96	110.4
685	3.80	34.18	1.15	27.18	89.9
908	3.28	34.31	.75	27.33	75.4
1132	2.86	34.41	.62	27.45	64.2
1345	2.58	34.46	.70	27.51	58.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	16.23	33.19	24.33	361.0	.000	1.204
10	16.22	33.21	24.34	359.3	.036	1.168
20	13.94	33.22	24.85	311.2	.068	1.137
30	9.58	33.43	25.82	219.0	.096	1.108
50	7.08	33.38	26.15	187.0	.136	1.069
75	6.43	33.41	26.26	176.5	.181	1.024
100	6.60	33.46	26.28	174.9	.225	.980
150	6.49	33.55	26.36	166.9	.310	.894
200	6.73	33.78	26.52	152.6	.390	.814
250	6.49	33.83	26.59	145.8	.464	.740
300	5.90	33.86	26.69	136.3	.535	.669
400	4.56	33.92	26.89	117.2	.659	.545
500	4.22	34.01	27.00	106.8	.770	.434
600	4.00	34.10	27.09	97.9	.872	.332
700	3.80	34.19	27.18	89.2	.966	.238
800	3.60	34.23	27.24	84.4	1.052	.152
1000	3.09	34.36	27.39	70.0	1.204	.000



Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 46: 43°20'N., 172°19'W., August 4, 1955. Messenger time: 1712  
 GCT. Weather: 03, cloud coverage 8. Wind: 320°, 15 kt. Sea: 1-3 ft.  
 Wire angle: 42°. RT slide: 131

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	17.60	33.60	5.83	24.32	361.8
8	17.54	33.61	5.86	24.34	359.8
23	14.20	33.67	6.30	25.14	283.3
48	7.60	33.59	7.25	26.25	178.2
70	8.88	33.93	6.68	26.32	171.1
106	7.70	33.80	6.58	26.40	163.9
174	7.15	33.82	6.43	26.49	155.1
224	6.92	33.87	5.79	26.56	148.6
295	5.65	33.87	5.23	26.73	132.7
441	4.67	33.96	3.15	26.91	115.5
594	4.13	34.11	1.74	27.09	98.4
754	3.64	34.21	.94	27.22	86.2
937	3.26	34.34	.83	27.35	73.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	17.60	33.60	24.32	361.7	.000	1.195
10	17.43	33.61	24.37	357.0	.036	1.159
20	15.10	33.66	24.94	302.6	.068	1.127
30	10.75	33.65	25.79	221.6	.095	1.100
50	7.20	33.56	26.28	175.0	.134	1.061
75	8.73	33.92	26.33	169.9	.177	1.018
100	7.70	33.80	26.40	163.9	.218	.976
150	7.34	33.80	26.45	159.1	.299	.896
200	6.79	33.84	26.55	148.9	.376	.819
250	6.38	33.87	26.63	141.5	.449	.746
300	5.61	33.87	26.73	132.3	.517	.678
400	4.88	33.93	26.86	119.9	.643	.552
500	4.45	34.00	26.97	109.9	.757	.438
600	4.13	34.12	27.10	97.7	.862	.333
700	3.80	34.16	27.16	91.5	.957	.238
800	3.58	34.24	27.24	83.5	1.044	.151
1000	( 3.06)	(34.42)	27.44	65.2	1.195	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 47: 41°39'N., 172°16'W., August 5, 1955. Messenger time: 0523  
 GCT. Weather: 02, cloud coverage 8. Wind: 020°, 16 kt. Sea: 1-3 ft.  
 Wire angle: 22°. BT slide: 135

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	21.11	34.02	5.94	23.74	416.8
10	19.60	33.96	6.37	24.09	383.0
25	16.49	34.07	6.39	24.94	302.3
38	12.40	34.21	6.08	25.92	209.3
53	11.66	34.17	5.54	26.03	198.8
97	10.52	34.20	5.35	26.26	177.2
155	9.66	34.14	5.86	26.35	167.7
257	8.13	33.98	5.94	26.47	156.6
434	5.92	33.96	4.14	26.76	129.2
649	4.43	34.05	2.00	27.01	106.0
861	3.69	34.20	.96	27.20	87.4
1074	3.16	34.33	.62	27.36	72.8
1277	2.81	34.38	.55	27.43	66.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	21.11	34.02	23.74	417.0	.000	1.325
10	19.60	33.96	24.09	383.0	.041	1.283
20	18.93	33.96	24.26	366.8	.079	1.246
30	14.21	34.18	25.53	246.5	.109	1.216
50	11.80	34.18	26.01	200.7	.150	1.174
75	10.86	34.20	26.20	182.8	.198	1.126
100	10.45	34.20	26.27	176.0	.243	1.081
150	9.74	34.15	26.35	168.2	.329	.995
200	8.99	34.06	26.41	163.0	.412	.913
250	8.19	33.98	26.47	157.3	.492	.833
300	7.50	33.96	26.55	149.3	.569	.756
400	6.29	33.95	26.71	134.3	.711	.614
500	5.32	33.98	26.85	120.9	.838	.487
600	4.67	34.02	26.96	110.6	.953	.371
700	4.26	34.08	27.05	102.1	1.059	.265
800	3.89	34.16	27.15	92.3	1.156	.169
1000	3.30	34.28	27.30	78.5	1.325	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 49 (shallow): 40°23'N., 172°33'W., August 5, 1955. Messenger time: 1526 GCT. Weather: 02, cloud coverage 8. Wind: 050°, 16 kt. Sea: 1-3 ft. Wire angle: 08°. BT slide: 139

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	22.20	34.13	5.82	23.52	437.5
16	22.20	34.13	6.54	23.52	437.5
27	19.34	34.11	6.68	24.27	365.9
27	19.48	34.11	-	24.23	369.6
33	15.54	34.25	5.73	25.29	268.8
48	13.60	34.33	5.14	25.77	223.2
65	12.93	34.36	5.15	25.93	208.2
107	11.68	34.27	5.59	26.10	191.8
160	10.90	34.21	5.53	26.20	182.8
216	10.38	34.20	5.41	26.28	174.7
325	9.02	34.09	5.11	26.42	161.3
458	6.75	33.96	4.27	26.65	139.4
569	5.34	33.95	3.16	26.83	123.2
679	4.61	34.02	2.11	26.96	110.1

Station 49 (deep): 40°23'N., 172°33'W., August 5, 1955. Messenger time: 1713 GCT. Weather: 02, cloud coverage 8. Wind: 020°, 18 kt. Sea: 1-3 ft. Wire angle: 14°. BT slide: 139

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
767	4.19	34.13	1.61	27.10	97.4
881	3.80	34.21	1.01	27.20	87.8
1090	3.22	34.34	.64	27.36	72.7
1309	2.79	34.37	.51	27.42	66.7
1520	2.52	34.46	.66	27.52	57.7
1753	2.24	34.50	.76	27.57	52.3
1963	2.06	34.55	1.00	27.63	47.5
2196	1.92	34.57	1.37	27.66	44.6
2405	1.83	34.63	1.68	27.71	39.4

Tablo 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 49: 40°23'N., 172°33'W., August 5, 1955 (cont'd)

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	22.20	34.13	23.52	437.5	.000	1.441
10	22.20	34.13	23.52	437.5	.044	1.397
20	22.05	34.13	23.57	433.5	.087	1.354
30	16.60	34.21	25.02	294.7	.126	1.315
50	13.46	34.34	25.81	219.7	.175	1.266
75	12.48	34.34	26.00	201.2	.228	1.213
100	11.79	34.28	26.09	193.0	.277	1.164
150	11.03	34.22	26.18	184.2	.371	1.070
200	10.49	34.21	26.27	175.7	.461	.980
250	10.03	34.18	26.33	170.6	.548	.893
300	9.41	34.12	26.38	165.3	.632	.809
400	7.78	34.00	26.54	150.0	.790	.651
500	6.10	33.95	26.73	132.1	.930	.511
600	5.09	33.96	26.86	119.8	1.055	.386
700	4.80	33.99	26.92	114.3	1.169	.272
800	4.05	34.15	27.13	94.7	1.269	.172
1000	3.50	34.29	27.29	79.0	1.441	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 50: 39°02'N., 172°30'W., August 6, 1955. Messenger time: 0350  
 GCT. Weather: 50, cloud coverage 8. Wind: 070°, 18 kt. Sea: 1-3 ft.  
 Wire angle: 05°. BT slide: 143

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	21.71	34.14	5.17	23.67	423.7
16	21.62	34.12	5.18	23.68	422.9
32	14.92	34.30	6.75	25.47	251.8
39	14.35	34.33	6.73	25.62	238.2
50	13.49	34.31	6.45	25.78	222.6
85	11.94	34.29	5.62	26.07	195.0
206	10.05	34.17	5.68	26.32	171.4
349	7.75	34.00	5.03	26.55	149.6
518	5.55	34.00	3.47	26.84	121.7
704	4.36	34.11	1.76	27.06	100.8
932	3.62	34.27	.88	27.26	81.7
1161	3.06	34.39	.60	27.42	67.3
1379	2.73	34.45	.65	27.49	60.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	21.71	34.14	23.66	423.9	.000	1.379
10	21.69	34.13	23.66	424.0	.042	1.337
20	21.05	34.12	23.83	408.2	.085	1.295
30	15.02	34.30	25.45	254.0	.113	1.266
50	13.49	34.31	25.78	222.6	.161	1.218
75	12.29	34.30	26.01	200.4	.213	1.166
100	11.61	34.27	26.11	190.8	.262	1.117
150	10.86	34.23	26.22	180.5	.354	1.025
200	10.18	34.18	26.30	172.9	.444	.936
250	9.40	34.12	26.38	165.0	.527	.852
300	8.58	34.06	26.47	157.1	.608	.772
400	7.01	33.98	26.63	141.3	.757	.623
500	5.77	33.99	26.81	125.0	.890	.489
600	4.88	34.04	26.95	111.3	1.007	.372
700	4.36	34.11	27.06	100.8	1.113	.266
800	4.00	34.18	27.16	92.0	1.209	.170
1000	3.48	34.30	27.30	78.0	1.379	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 52: 37°23'N., 172°29'W., August 6, 1955. Messenger time: 1613  
 GCT. Weather: 53, cloud coverage 8. Wind: 050°, 18 kt. Sea: 5-8 ft.  
 Wire angle: 20°. BT slide: 147

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	22.26	34.29	5.11	23.63	427.5
26	17.56	34.48	6.06	25.00	291.5
38	15.81	34.54	6.34	25.45	253.4
63	14.64	34.51	6.01	25.69	230.9
108	13.52	34.49	5.32	25.91	210.1
215	12.10	34.40	5.46	26.13	189.6
321	10.52	34.25	5.33	26.30	173.3
436	8.89	34.11	4.95	26.46	157.9
542	6.80	33.99	4.40	26.67	137.9
651	5.19	33.98	3.13	26.87	119.3
863	4.09	34.31	1.35	27.25	82.9
1074	3.40	34.13	.84	27.17	90.2
1277	2.92	34.39	.62	27.43	66.4

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	22.26	34.29	23.63	427.5	.000	1.540
10	22.28	34.29	23.62	428.0	.043	1.497
20	21.15	34.34	23.97	394.9	.086	1.454
30	16.90	34.50	25.17	280.3	.118	1.422
50	15.15	34.53	25.60	240.0	.169	1.371
75	14.22	34.50	25.77	223.1	.226	1.334
100	13.63	34.49	25.89	212.3	.281	1.259
150	12.91	34.46	26.01	200.3	.384	1.157
200	12.28	34.41	26.10	192.2	.482	1.058
250	11.61	34.35	26.17	185.0	.576	.964
300	10.84	34.28	26.26	176.6	.666	.874
400	9.41	34.15	26.40	163.1	.835	.705
500	7.65	34.03	26.58	146.1	.990	.550
600	5.93	33.98	26.78	127.9	1.127	.413
700	4.79	34.00	26.93	113.3	1.246	.294
800	4.34	34.07	27.03	103.6	1.355	.186
1000	3.65	34.25	27.25	83.4	1.540	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 53: 35°55'N., 172°31'W., August 7, 1955. Messenger time: 0223 GCT. Weather: 02, cloud coverage 2. Wind: 110°, 11 kt. Sea: 1-3 ft. Wire angle: 11°. BT slide: 151

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	23.28	34.36	5.00	23.39	450.0
13	23.02	34.38	5.02	23.48	441.5
29	18.66	34.39	5.89	24.66	329.0
37	17.27	34.43	6.19	25.03	293.5
47	15.88	34.49	6.34	25.40	258.5
68	14.24	34.47	5.45	25.74	225.3
136	13.18	34.42	5.46	25.93	208.5
265	11.84	34.32	5.51	26.11	191.0
426	9.64	34.16	5.07	26.38	165.3
640	5.74	33.97	3.48	26.79	126.2
853	4.21	34.11	1.50	27.08	99.3
1061	3.50	34.26	.80	27.27	81.2
1277	2.97	34.37	.56	27.41	68.0

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	23.28	34.36	23.39	450.0	.000	1.601
10	23.08	34.37	23.46	443.7	.045	1.556
20	22.93	34.38	23.51	438.8	.089	1.512
30	18.35	34.39	24.74	321.7	.124	1.477
50	15.39	34.50	25.52	247.3	.180	1.421
75	14.10	34.47	25.77	223.0	.238	1.363
100	13.68	34.45	25.85	216.2	.292	1.309
150	13.02	34.41	25.95	206.3	.398	1.203
200	12.50	34.38	26.03	198.7	.499	1.102
250	12.01	34.34	26.10	192.5	.597	1.004
300	11.46	34.30	26.17	185.8	.691	.910
400	10.07	34.19	26.33	170.5	.869	.732
500	8.43	34.08	26.51	153.4	1.032	.569
600	6.48	33.99	26.71	133.8	1.176	.425
700	5.12	34.00	26.89	117.0	1.300	.301
800	4.54	34.06	27.00	106.4	1.412	.189
1000	3.69	34.22	27.22	85.9	1.601	.000



Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 55: 34°20'N., 172°35'W., August 7, 1955. Messenger time: 1428  
 GCT. Weather: 02, cloud coverage 3. Wind: 130°, 12 kt. Sea: 1-3 ft.  
 Wire angle: 32°. HT alide: 155

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	23.84	34.58	4.93	23.39	450.0
12	23.86	34.57	4.91	23.38	451.2
25	19.84	34.49	5.77	24.44	350.6
56	15.48	34.52	6.34	25.52	247.6
97	14.00	34.49	5.34	25.81	219.7
190	12.73	34.43	5.32	26.02	199.3
288	11.53	34.32	5.00	26.17	185.8
388	10.00	34.23	5.02	26.37	166.3
484	8.08	34.11	4.54	26.59	146.0
582	6.37	34.00	3.74	26.74	131.5
775	4.52	34.09	1.83	27.03	104.0
976	3.68	34.27	.76	27.26	82.0
1178	3.17	34.35	.40	27.37	71.5

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	23.84	34.58	23.39	449.8	.000	1.560
10	23.85	34.57	23.38	451.0	.045	1.515
20	23.65	34.56	23.43	446.0	.090	1.470
30	18.65	34.50	24.74	320.9	.125	1.435
50	15.80	34.52	25.44	254.6	.180	1.380
75	14.66	34.51	25.69	231.3	.240	1.320
100	13.92	34.49	25.83	218.0	.296	1.264
150	13.19	34.46	25.95	205.8	.402	1.158
200	12.61	34.42	26.04	197.7	.503	1.058
250	12.02	34.37	26.12	190.4	.600	.961
300	11.36	34.31	26.19	183.3	.692	.868
400	9.78	34.22	26.40	163.6	.866	.694
500	7.79	34.09	26.61	143.5	1.019	.541
600	6.10	34.00	26.77	128.2	1.155	.405
700	5.02	34.03	26.93	113.5	1.276	.284
800	4.36	34.12	27.07	100.0	1.383	.177
1000	3.60	34.29	27.28	79.8	1.560	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 56: 32°36'N., 172°27'W., August 8, 1955. Messenger time: 0121 GCT. Weather: 21, cloud coverage 8. Wind: 230°, 14 kt. Sea: 1-3 ft. Wire angle: 16°. BT aside: 159

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.46	34.87	4.87	23.43	446.6
16	24.49	34.88	4.86	23.43	446.8
33	18.97	34.60	5.94	24.74	321.5
40	17.80	34.61	6.11	25.04	292.9
56	16.33	34.61	6.07	25.39	259.6
92	15.20	34.58	5.13	25.62	237.3
209	13.32	34.43	5.05	25.90	210.6
310	11.88	34.33	5.08	26.11	190.9
468	9.18	34.12	4.77	26.42	161.6
625	6.30	33.97	3.54	26.72	133.1
834	4.28	34.09	1.53	27.06	101.4
1039	3.54	34.25	.58	27.26	82.4
1225	3.10	34.36	.40	27.39	70.1

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta^1 D$	$\Delta^1 D_{1000} - \Delta^1 D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.46	34.87	23.43	446.7	.000	1.654
10	24.47	34.88	23.43	446.2	.045	1.610
20	24.47	34.88	23.43	446.2	.089	1.565
30	19.52	34.62	24.62	333.3	.127	1.528
50	16.70	34.61	25.30	267.7	.186	1.468
75	15.62	34.60	25.54	244.8	.249	1.406
100	15.02	34.57	25.66	234.3	.308	1.346
150	14.21	34.50	25.77	222.9	.423	1.232
200	13.43	34.44	25.89	212.0	.531	1.123
250	12.72	34.39	26.00	202.0	.635	1.019
300	12.04	34.34	26.09	193.0	.734	.920
400	10.38	34.22	26.30	173.3	.917	.738
500	8.56	34.08	26.49	155.3	1.081	.574
600	6.72	33.98	26.67	137.6	1.227	.428
700	5.47	33.99	26.84	121.8	1.355	.299
800	4.50	34.07	27.02	105.2	1.469	.186
1000	3.63	34.22	27.22	85.4	1.654	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 58: 31°22'N., 172°25'W., August 8, 1955. Messenger time: 1213 OCT. Weather: 25, cloud coverage 6. Wind: 140°, 18 kt. Sea: 3-5 ft. Wire angle: 28°. BT slide: 163

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.94	35.25	4.80	23.57	433.2
24	24.88	35.21	4.85	23.56	434.2
37	21.27	35.05	5.45	24.48	346.5
53	19.70	34.96	5.52	24.83	313.0
103	16.58	34.71	5.42	25.41	257.7
206	14.50	34.52	5.11	25.73	227.4
307	12.91	34.39	5.05	25.96	205.6
417	11.24	34.31	4.93	26.21	181.4
519	8.96	34.13	4.60	26.46	157.5
PT	-	-	-	-	-
589	6.93	34.03	3.93	26.69	136.4
589	7.04	34.03	-	26.67	137.8
775	4.69	34.04	2.28	26.97	109.3
953	3.88	34.19	1.02	27.18	90.0

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.94	35.25	23.57	433.4	.000	1.747
10	24.91	35.23	23.56	433.7	.043	1.704
20	24.89	35.22	23.56	433.8	.087	1.661
30	22.80	35.12	24.10	382.0	.130	1.617
50	20.24	34.99	24.71	324.4	.199	1.548
75	17.84	34.82	25.19	278.3	.272	1.475
100	16.63	34.72	25.40	258.1	.339	1.409
150	15.11	34.61	25.60	239.6	.463	1.284
200	14.61	34.53	25.71	228.9	.580	1.167
250	13.82	34.46	25.83	218.2	.692	1.055
300	13.00	34.40	25.95	206.6	.798	.950
400	11.52	34.32	26.17	185.4	.994	.754
500	9.41	34.17	26.42	161.6	1.167	.580
600	6.80	34.03	26.70	134.7	1.316	.432
700	5.45	34.01	26.86	120.0	1.443	.304
800	4.53	34.06	27.00	106.2	1.556	.191
1000	( 3.83)	(34.22)	(27.21)	( 87.2)	1.747	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 59 (shallow): 30°14'N., 172°43'W., August 8, 1955. Messenger time: first cast 2309 GCT, second cast 2337 GCT. Weather: 02, cloud coverage 2. Wind: 170°, 16 kt. Sea: 3-5 ft. Wire angle: first cast 19°, second cast not recorded. BT slide: 167

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	25.16	35.02	4.78	23.33	456.2
15	25.14	35.05	4.75	23.36	453.4
36	21.86	35.08	5.41	24.34	359.8
46	21.30	35.04	5.48	24.46	348.1
66	19.70	35.07	5.43	24.91	305.0
81	18.32	34.88	5.49	25.12	285.5
136	16.95	34.79	5.08	25.38	260.2
212	15.24	34.57	4.92	25.61	239.0
289	13.64	34.42	4.87	25.83	217.7
360	12.50	34.36	4.93	26.01	200.2
452	10.73	34.23	4.72	26.24	178.4
563	8.64	34.13	4.31	26.51	152.9
675	6.67	34.01	NS	26.71	134.5

Station 59 (deep): 30°14'N., 172°43'W., August 9, 1955. Messenger time: 0112 GCT. Weather: 02, cloud coverage 2. Wind: 170°, 16 kt. Sea: 3-5 ft. Wire angle: 07°. BT slide: 167

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
800	4.91	34.08	1.80	26.98	108.8
909	4.17	34.17	.96	27.13	94.3
1024	3.78	34.25	.59	27.23	84.5
1139	3.40	34.34	.46	27.34	74.3
1371	2.89	34.43	.73	27.46	62.9
1598	2.46	34.51	.82	27.56	53.5

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 59: 30°14'N., 172°43'W., August 8, 1955 (cont'd)

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.16	35.02	23.33	456.0	.000	1.824
10	25.15	35.04	23.35	454.3	.045	1.779
20	25.40	35.17	23.37	452.3	.091	1.734
30	24.10	35.18	23.77	444.1	.136	1.689
50	21.08	35.04	24.52	342.3	.207	1.618
75	18.57	34.91	25.08	289.2	.285	1.540
100	17.66	34.84	25.25	272.7	.355	1.470
150	16.66	34.76	25.43	255.8	.486	1.338
200	15.48	34.60	25.58	241.6	.611	1.214
250	14.42	34.49	25.72	227.8	.728	1.096
300	13.45	34.41	25.86	214.6	.839	.986
400	11.79	34.31	26.11	190.8	1.041	.783
500	9.84	34.19	26.37	166.8	1.219	.605
600	8.02	34.09	26.58	146.6	1.375	.449
700	6.23	34.01	26.76	129.1	1.514	.310
800	4.91	34.08	26.98	108.8	1.634	.190
1000	3.80	34.24	27.22	85.5	1.824	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 61: 29°57'N., 170°40'W., August 9, 1955. Messenger time 1440  
 GCT. Weather: 03, cloud coverage 7. Wind: 080°, 16 kt. Sea: 3-5 ft.  
 Wire angle: 14°. BT slide: 171

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	25.09	35.22	4.80	23.50	439.7
24	25.10	35.24	4.77	23.51	438.5
42	21.30	35.03	5.62	24.45	348.9
64	18.50	34.86	5.87	25.06	291.0
114	15.69	34.63	5.33	25.55	244.2
227	13.51	34.43	4.92	25.86	214.4
340	11.59	34.31	4.90	26.15	187.3
460	9.70	34.18	4.74	26.38	165.4
573	7.42	34.04	3.83	26.62	142.3
689	5.53	34.04	2.40	26.87	118.7
689	5.48	34.04	-	26.88	118.1
913	3.95	34.20	.80	27.18	89.8
1138	3.26	34.38	.52	27.39	70.0
1354	2.83	34.48	.65	27.51	58.8

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.09	35.22	23.50	439.7	.000	1.701
10	25.10	35.23	23.50	439.3	.044	1.657
20	25.10	35.24	23.51	438.5	.088	1.613
30	25.00	35.24	23.54	435.8	.132	1.569
50	20.02	35.06	24.82	313.9	.204	1.496
75	17.40	34.81	25.29	269.0	.277	1.424
100	16.08	34.68	25.51	248.6	.341	1.359
150	14.92	34.54	25.65	234.4	.462	1.239
200	13.97	34.45	25.79	221.8	.576	1.125
250	13.11	34.41	25.93	208.0	.683	1.018
300	12.23	34.35	26.06	195.7	.784	.917
400	10.64	34.25	26.28	175.3	.969	.732
500	8.99	34.14	26.47	157.1	1.136	.565
600	7.05	34.02	26.66	138.6	1.283	.417
700	5.40	34.05	26.90	116.5	1.410	.290
800	4.53	34.12	27.05	101.7	1.518	.182
1000	3.67	34.25	27.25	83.5	1.701	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 62: 29°53'N., 168°50'W., August 10, 1955. Messenger time: 0524  
 GCT. Weather: 02, cloud coverage 4. Wind: 090°, 13 kt. Sea: 3-5 ft.  
 Wire angle: 04°. BT slide: 175

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.96	35.12	4.82	23.46	443.2
16	24.48	35.16	4.88	23.64	426.3
32	20.41	35.07	5.61	24.72	323.0
53	19.06	35.03	5.58	25.05	292.2
116	16.98	34.88	5.28	25.44	254.4
233	14.83	34.54	5.11	25.67	232.6
348	12.40	34.34	4.98	26.02	199.8
470	10.33	34.19	4.90	26.28	174.8
585	7.96	34.07	4.14	26.57	147.3
702	6.08	34.00	3.31	26.78	127.8
930	3.98	34.22	.70	27.19	88.6
1158	3.40	34.39	.61	27.38	70.6
1376	3.32	34.47	.69	27.45	63.8

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.96	35.12	23.46	443.2	.000	1.777
10	24.94	35.13	23.47	442.3	.044	1.733
20	22.90	35.10	24.06	386.2	.088	1.689
30	20.52	35.07	24.69	325.8	.122	1.655
50	19.17	35.03	25.02	294.8	.183	1.593
75	18.15	34.97	25.23	274.7	.254	1.523
100	17.37	34.91	25.37	261.0	.321	1.456
150	16.32	34.79	25.53	246.1	.447	1.330
200	15.43	34.63	25.61	238.6	.568	1.209
250	14.52	34.51	25.72	228.5	.685	1.092
300	13.42	34.42	25.88	213.2	.795	.981
400	11.58	34.28	26.13	189.6	.995	.782
500	9.78	34.16	26.35	168.0	1.174	.603
600	7.62	34.06	26.61	143.6	1.330	.447
700	6.10	34.00	26.77	128.3	1.466	.311
800	5.01	34.04	26.94	112.8	1.586	.191
1000	3.68	34.29	27.28	80.5	1.777	.000



Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 64: 29°50'N., 166°45'W., August 10, 1955. Messenger time: 2001 GCT. Weather: 01, cloud coverage 4. Wind: 100°, 16 kt. Sea: 3-5 ft. Wire angle: 30°. BT slide: 179

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	25.28	35.45	4.72	23.61	428.7
28	25.36	35.48	4.76	23.61	429.0
41	22.62	35.34	5.33	24.32	361.5
57	21.40	35.29	5.35	24.62	332.7
93	19.14	35.12	5.26	25.09	287.8
179	16.34	34.77	4.87	25.51	248.2
268	13.96	34.47	4.73	25.80	220.2
361	11.93	34.30	4.77	26.08	194.1
450	10.16	34.14Q	4.35	26.27	175.6
545	8.52	34.11	3.88	26.52	152.6
729	5.64	34.05	2.13	26.87	119.2
910	4.23	34.20	.90	27.15	92.7
1098	3.63	34.34	.59	27.32	76.4

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	25.28	35.45	23.62	428.5	.000	1.809
10	25.33	35.47	23.61	428.8	.043	1.766
20	25.36	35.47	23.61	429.6	.086	1.723
30	25.37	35.48	23.61	429.1	.129	1.680
50	21.90	35.32	24.51	343.5	.204	1.605
75	20.06	35.21	24.92	304.0	.284	1.524
100	18.88	35.10	25.14	283.0	.358	1.451
150	17.20	34.89	25.40	258.6	.493	1.316
200	16.73	34.83	25.47	252.3	.617	1.191
250	14.45	34.52	25.74	226.3	.734	1.074
300	13.22	34.40	25.90	210.7	.843	.965
400	11.15	34.22	26.16	186.3	1.040	.769
500	9.27	34.12	26.41	163.0	1.216	.593
600	7.63	34.07	26.62	143.0	1.367	.442
700	6.08	34.03	26.80	125.7	1.502	.307
800	4.97	34.10	26.99	107.7	1.618	.191
1000	3.99	34.26	27.32	76.4	1.809	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 65: 29°59'N., 164°49'W., August 11, 1955. Messenger time: 1027 GCT. Weather: 02, cloud coverage 2. Wind: 110°, 13 kt. Sea: 1-3 ft. Wire angle: 20°. BT slide: 183

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/l)	(g/l)	(cl/ton)
0	24.61	35.15	4.81	23.59	430.9
27	24.62	35.16	4.83	23.60	430.5
35	24.49	35.17	4.87	23.64	425.8
83	17.22	34.76	5.67	25.30	268.6
147	14.86	34.53	5.03	25.66	233.9
236	12.88	34.35	4.92	25.93	207.9
354	11.02	34.26	4.54	26.22	181.0
467	9.09	34.14	4.53	26.45	158.7
587	6.77	34.02	3.53	26.70	135.0
742	4.84	34.07	1.88	26.98	108.8
992	3.84	34.28	.50	27.25	82.9
1246	3.17	34.45	.60	27.45	63.8
1552	2.64	34.55	1.23	27.58	52.0

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/l)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.61	35.15	23.59	430.9	.000	1.688
10	24.61	35.15	23.59	430.9	.043	1.645
20	24.62	35.16	23.60	430.5	.086	1.602
30	24.61	35.16	23.60	430.1	.129	1.559
50	19.68	34.93	24.81	314.6	.204	1.484
75	17.52	34.78	25.24	273.9	.275	1.412
100	16.58	34.70	25.40	258.4	.342	1.346
150	14.77	34.52	25.67	232.8	.464	1.224
200	13.62	34.42	25.83	217.3	.576	1.112
250	12.63	34.34	26.97	204.1	.682	1.006
300	11.88	34.30	26.09	193.2	.781	.907
400	10.27	34.22	26.32	171.5	.963	.725
500	8.48	34.11	26.52	152.1	1.125	.562
600	6.53	34.02	26.73	132.1	1.267	.420
700	5.22	34.05	26.92	114.5	1.390	.298
800	4.60	34.10	27.03	104.0	1.498	.190
1000	3.87	34.23	27.21	86.8	1.688	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 66: 31°36'N., 164°41'W., August 11, 1955. Messenger time: 2225  
 GCT. Weather: 02, cloud coverage 2. Wind: 090°, 13 kt. Sea: 1-3 ft.  
 Wire angle: 03°. BT slide: 187

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.68	35.36	4.84	23.73	417.7
32	24.60	35.39	4.77	23.78	413.3
46	22.44	35.07	5.17	24.17	376.0
55	19.05	34.69	5.78	24.79	316.7
109	15.26	34.56	5.59	25.60	239.9
217	13.18	34.42	5.23	25.93	208.6
323	11.46	34.31	4.93	26.17	185.2
434	9.84	34.18	4.98	26.36	167.7
540	7.84	34.05	4.17	26.57	147.3
651	6.02	34.02	3.10	26.80	125.8
869	4.22	34.14	1.17	27.10	97.2
1081	3.42	34.30	.45	27.31	77.6
1299	3.04	34.44	.47	27.46	63.6

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.68	35.36	23.73	417.6	.000	1.690
10	24.67	35.38	23.75	416.0	.042	1.649
20	24.62	35.39	23.77	413.8	.083	1.607
30	24.60	35.39	23.78	413.3	.124	1.566
50	20.30	34.80	24.55	339.6	.205	1.485
75	16.32	34.61	25.28	270.4	.278	1.412
100	15.55	34.58	25.54	244.8	.342	1.348
150	14.38	34.51	25.75	225.7	.460	1.231
200	13.44	34.44	25.89	212.2	.569	1.121
250	12.62	34.38	26.01	200.9	.672	1.018
300	11.84	34.34	26.13	189.6	.770	.920
400	10.37	34.23	26.31	172.4	.950	.740
500	8.62	34.09	26.48	155.6	1.115	.575
600	6.80	34.02	26.70	135.4	1.260	.430
700	5.57	34.03	26.86	119.8	1.387	.304
800	4.72	34.07	26.99	107.6	1.500	.190
1000	3.71	34.22	27.22	86.2	1.690	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 67: 32°57'N., 164°58'W., August 12, 1955. Messenger time: first cast 1056 GCT, second cast 1120 GCT. Weather: 02, cloud coverage not recorded. Wind: 110°, 17 kt. Sea: 1-3 ft. Wire angle: first cast 00°, second cast 00°. BT slide: 191

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.36	34.86	4.85	23.45	444.5
27	23.14	34.76	5.17	23.73	417.3
36	19.94	34.60	5.79	24.49	345.1
85	14.96	34.57	5.58	25.67	233.1
142	13.98	34.49	5.32	I 25.81	219.3
233	12.55	34.39	5.40	II 26.03	198.8
349	11.08	34.28	5.09	26.22	180.7
471	9.04	34.16	4.90	26.47	156.6
587	6.74	34.01	4.04	26.70	135.4
704	5.08	34.01	2.52	26.91	115.7
932	3.82	34.22	.74	27.21	87.2
1161	3.18	34.35	.36	27.37	71.5
1379	2.86	34.50	.50	27.52	57.5

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.36	34.86	23.45	444.6	.000	1.633
10	24.35	34.85	23.44	445.0	.044	1.588
20	24.30	34.85	23.46	443.4	.089	1.544
30	21.80	34.67	24.04	387.8	.132	1.501
50	17.12	34.60	25.20	277.9	.196	1.437
75	15.27	34.58	25.61	238.8	.259	1.374
100	14.67	34.55	25.72	228.7	.317	1.316
150	13.82	34.48	25.84	216.7	.428	1.204
200	13.08	34.43	25.96	205.9	.534	1.099
250	12.33	34.37	26.06	196.2	.634	.998
300	11.73	34.33	26.14	188.5	.730	.902
400	10.35	34.23	26.31	172.1	.911	.722
500	8.44	34.13	26.54	150.0	1.072	.561
600	6.52	33.99	26.70	134.3	1.213	.420
700	5.18	34.01	26.89	116.9	1.338	.295
800	4.46	34.08	27.03	104.1	1.448	.185
1000	3.62	34.25	27.25	83.2	1.633	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 68: 34°42'N., 164°40'W., August 12, 1955. Messenger time: 2217  
 GCT. Weather: 02, cloud coverage 5. Wind: 130°, 11 kt. Sea: 1-3 ft.  
 Wire angle: 18°. BT slide: 195

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/l)	(g/L)	(cl/ton)
0	24.40	34.82	4.86	23.41	448.6
21	21.54	34.74	5.58	24.17	376.0
36	17.43	34.69	6.17	25.19	278.6
62	15.60	34.60	6.04	25.55	244.4
102	14.10	34.51	5.26	25.81	220.1
204	12.64	34.39	5.35	26.01	200.5
303	11.46	34.34	5.26	26.20	182.9
407	9.78	34.19	5.00	26.38	165.7
507	8.02	34.04	4.73	26.54	150.4
613	6.33	33.97	3.73	26.72	133.5
819	4.42	34.09	1.54	27.04	102.9
1023	3.60	34.26	.47	27.26	82.2
1237	3.12	34.40	.29	27.42	67.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.40	34.82	23.41	448.6	.000	1.607
10	24.32	34.81	23.43	446.8	.045	1.562
20	21.90	34.75	24.08	384.7	.089	1.518
30	18.62	34.71	24.91	304.8	.123	1.484
50	16.20	34.64	25.44	254.4	.177	1.430
75	14.92	34.57	25.68	232.2	.237	1.369
100	14.12	34.51	25.80	220.5	.294	1.313
150	13.40	34.45	25.90	210.7	.401	1.205
200	12.72	34.40	26.00	201.3	.504	1.102
250	12.13	34.37	26.10	192.5	.603	1.004
300	11.52	34.34	26.18	184.0	.697	.910
400	9.85	34.20	26.37	166.2	.873	.734
500	8.16	34.05	26.53	151.7	1.031	.576
600	6.53	33.97	26.69	136.0	1.175	.432
700	5.38	33.99	26.85	120.6	1.302	.305
800	4.60	34.05	26.99	107.8	1.416	.191
1000	3.68	34.19	27.20	88.1	1.607	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 69: 36°05'N., 164°48'W., August 13, 1955. Messenger time: 0947  
 GCT. Weather: 50, cloud coverage not recorded. Wind: 150, 16 kt. Sea:  
 1-3 ft. Wire angle: 18°. BT slide: 199

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	23.84	34.57	4.95	23.38	450.7
15	23.86	34.57	4.97	23.38	451.1
25	23.44	34.52	4.97	23.46	443.0
34	19.10	34.34	5.89	24.51	343.3
65	14.70	34.36	6.47	25.56	243.1
126	12.99	34.43	5.33	25.97	204.1
207	11.95	34.40	5.32	26.15	187.0
308	10.51	34.23	5.13	26.28	174.7
465	7.98	34.07	4.54	26.57	147.5
623	5.48	34.03	3.18	26.87	118.8
832	4.12	34.17	1.18	27.14	93.8
1037	3.40	34.31	.51	27.32	76.6
1250	2.96	34.39	.32	27.42	66.6

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta^1 D$	$\Delta^1 D_{1000} - \Delta^1 D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	23.84	34.57	23.39	450.6	.000	1.538
10	23.85	34.57	23.38	451.0	.045	1.493
20	23.75	34.56	23.40	448.9	.090	1.448
30	23.20	34.50	23.52	437.8	.134	1.404
50	16.25	34.35	25.21	276.6	.199	1.339
75	14.27	34.37	25.66	233.5	.261	1.277
100	13.49	34.41	25.85	215.4	.317	1.221
150	12.63	34.43	26.04	197.4	.419	1.119
200	12.03	34.41	26.14	188.0	.515	1.023
250	11.32	34.33	26.21	181.3	.607	.931
300	10.62	34.25	26.28	175.1	.696	.842
400	9.08	34.13	26.44	159.4	.864	.674
500	7.40	34.06	26.64	140.5	1.014	.524
600	5.85	34.03	26.83	123.1	1.146	.392
700	4.80	34.08	26.99	107.6	1.260	.278
800	4.25	34.14	27.10	97.4	1.362	.176
1000	3.57	34.27	27.27	81.1	1.538	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 70: 37°30'N., 164°48'W., August 13, 1955. Messenger time: 2025 GCT. Weather: 02, cloud coverage 6. Wind: 190°, 18 kt. Sea: 3-5 ft. Wire angle: 15°. BT slide: 203

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	23.08	34.23	5.06	23.35	454.0
13	22.82	34.19	5.08	23.39	449.8
23	19.27	34.16	6.08	24.33	360.3
42	14.85	34.33	7.06	25.51	248.3
61	13.14	34.27	6.22	25.82	218.8
112	11.88	34.26	5.64	26.06	196.1
225	10.30	34.14	5.82	26.25	178.0
336	9.56	34.14	5.28	26.37	166.1
453	7.76	34.02	4.68	26.56	148.5
677	5.00	33.97	2.50	26.88	118.0
897	3.87	34.17	1.00	27.16	91.4
1120	3.22	34.33	.50	27.35	73.5
1334	2.82	34.42	.41	27.46	63.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	23.08	34.23	23.35	453.9	.000	1.506
10	23.03	34.22	23.36	453.2	.045	1.461
20	22.12	34.18	23.58	431.9	.089	1.417
30	16.72	34.33	25.09	288.7	.122	1.384
50	14.08	34.30	25.65	235.1	.173	1.332
75	12.61	34.27	25.92	208.8	.228	1.277
100	12.02	34.27	26.04	197.9	.279	1.227
150	11.37	34.23	26.13	189.5	.376	1.130
200	10.67	34.17	26.21	181.8	.469	1.037
250	10.10	34.13	26.28	175.3	.558	.948
300	9.77	34.14	26.34	169.4	.644	.862
400	8.59	34.06	26.47	157.1	.808	.698
500	7.14	34.00	26.64	141.2	.956	.550
600	5.87	33.97	26.78	127.9	1.090	.416
700	4.86	33.98	26.90	115.8	1.210	.296
800	4.34	34.04	27.01	105.8	1.321	.185
1000	3.60	34.24	27.24	83.7	1.506	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 71: 38°59'N., 164°50'W., August 14, 1955. Messenger time: 0648  
 GCT. Weather: 03, cloud coverage 8. Wind: 130°, 21 kt. Sea: 3-5 ft.  
 Wire angle: 25°. BT slide: 207

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	23.22	34.29	5.01	23.36	453.6
10	23.22	34.28	5.02	23.35	454.4
24	18.68	34.28	6.37	25.57	337.3
57	13.48	34.35	6.07	25.81	219.7
129	11.75	34.32	5.49	26.13	189.5
212	10.76	34.25	5.54	26.25	177.5
317	9.17	34.07	5.62	26.38	165.1
429	7.81	34.04	4.77	26.57	147.6
535	6.04	33.95	3.89	26.74	131.3
641	4.87	34.00	2.55	26.92	114.1
849	3.99	34.16	1.15	27.14	93.2
1058	3.39	34.28	.64	27.30	77.8
1257	2.92	34.37	.45	27.41	67.8

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	23.22	34.29	23.35	453.6	.000	1.462
10	23.22	34.28	23.35	454.3	.045	1.416
20	21.02	34.18	23.88	403.0	.091	1.371
30	16.25	34.34	25.20	277.4	.122	1.340
50	11.02	34.35	25.70	230.3	.174	1.288
75	12.67	34.35	25.97	204.0	.227	1.235
100	12.20	34.34	26.06	195.9	.277	1.185
150	11.44	34.30	26.17	185.5	.372	1.090
200	10.88	34.26	26.24	178.6	.463	.999
250	10.18	34.19	26.31	172.3	.551	.911
300	9.39	34.09	26.36	167.1	.635	.826
400	8.18	34.05	26.52	152.0	.795	.667
500	6.67	33.98	26.68	136.8	.940	.522
600	5.30	33.96	26.84	122.0	1.069	.393
700	4.54	34.04	26.99	108.0	1.182	.279
800	4.12	34.12	27.10	97.6	1.285	.176
1000	3.47	34.25	27.26	81.7	1.462	.000



Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 73: 40°28'N., 165°00'W., August 14, 1955. Messenger time: 1852  
 GCT. Weather: 03, cloud coverage 6. Wind: 150°, 18 kt. Sea: 3-5 ft.  
 Wire angle: 07°. BT slide: 211

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	22.09	34.05	5.20	23.49	440.2
14	21.17	34.04	5.58	23.74	417.0
31	13.29	34.17	6.85	25.71	228.9
55	11.48	34.14	6.04	26.04	198.0
110	10.26	34.12	5.96	26.24	178.8
231	8.70	34.02	5.89	26.42	161.9
345	7.28	33.97	4.95	26.59	145.5
467	5.66	33.96	3.51	26.80	126.1
697	4.18	34.13	1.58	27.10	97.4
925	3.46	34.26	.77	27.27	80.8
1150	2.96	34.36	.59	27.40	68.8
1367	2.62	34.43	.58	27.48	60.8
1631	2.34	34.49	.66	27.56	54.1

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta^1 D$	$\Delta^1 D_{1000} - \Delta^1 D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	22.09	34.05	23.49	440.2	.000	1.330
10	22.09	34.05	23.49	440.2	.044	1.286
20	16.80	34.12	24.90	305.7	.083	1.248
30	13.35	34.17	25.70	230.3	.108	1.223
50	11.67	34.15	26.01	200.5	.150	1.180
75	10.96	34.14	26.13	189.0	.199	1.132
100	10.41	34.13	26.22	180.6	.245	1.086
150	9.66	34.09	26.32	171.5	.333	.998
200	9.06	34.04	26.38	165.7	.417	.914
250	8.47	34.01	26.45	159.2	.498	.833
300	7.88	33.99	26.52	152.2	.576	.755
400	6.55	33.96	26.68	136.9	.720	.610
500	5.37	33.96	26.83	122.8	.849	.481
600	4.72	34.01	26.94	112.0	.967	.363
700	4.13	34.13	27.10	97.0	1.070	.260
800	3.80	34.18	27.18	90.0	1.163	.167
1000	3.28	34.28	27.31	77.7	1.330	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 74: 42°03'N., 164°52'W., August 15, 1955. Messenger time: 0526  
 GCT. Weather: 02, cloud coverage 4. Wind: 160°, 15 kt. Sea: 1-3 ft.  
 Wire angle: 25°. BT slide: 215

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	21.80	33.95	5.27	23.50	440.0
9	21.22	33.97	5.30	23.67	423.3
18	17.74	33.93	6.73	24.54	340.9
53	10.45	33.89	6.49	26.03	198.8
129	9.02	33.96	6.20	26.32	171.1
212	8.71	34.00	5.92	26.40	163.5
313	7.56	34.01	5.09	26.58	146.4
430	6.07	34.00	3.95	26.78	127.6
538	5.06	34.03	2.74	26.92	114.1
646	4.40	34.07	1.78	27.03	104.2
860	3.69	34.22	.78	27.22	85.9
1078	3.18	34.34	.51	27.36	72.3
1291	2.79	34.45	.49	27.49	60.6

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	21.80	33.95	23.50	440.0	.000	1.324
10	20.88	33.97	23.76	414.5	.044	1.280
20	17.12	33.93	24.68	326.9	.081	1.243
30	15.04	33.91	25.14	283.1	.111	1.212
50	10.59	33.89	26.01	201.1	.157	1.167
75	9.98	33.90	26.12	190.6	.205	1.118
100	9.48	33.92	26.22	181.0	.252	1.072
150	8.36	33.98	26.36	167.1	.338	.986
200	8.76	34.00	26.39	164.1	.421	.903
250	8.38	34.01	26.46	157.9	.502	.822
300	7.80	34.01	26.55	149.7	.578	.745
400	6.45	34.00	26.73	132.5	.719	.605
500	5.40	34.02	26.87	118.8	.843	.480
600	4.67	34.05	26.98	108.5	.956	.368
700	4.16	34.10	27.08	99.5	1.060	.264
800	3.84	34.17	27.16	91.2	1.155	.169
1000	3.34	34.29	27.31	77.6	1.324	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 76: 43°29'N., 165°02'W., August 15, 1955. Messenger time: 1735  
 GCT. Weather: 02, cloud coverage 7. Wind: 200°, 13 kt. Sea: 1-3 ft.  
 Wire angle: 11°. BT slide: 219

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	20.26	33.33	5.36	23.45	444.8
17	19.72	33.47	5.37	23.69	421.5
29	14.64	33.64	7.51	25.02	294.5
33	11.40	33.68	7.75	25.70	230.4
97	7.91	33.58	6.55	26.19	183.3
146	7.90	33.73	6.45	26.31	172.0
229	7.35	33.69	5.69	26.36	167.3
342	6.12	33.87	4.23	26.67	138.4
464	4.91	33.92	2.95	26.85	120.8
692	4.01	34.10	1.26	27.09	98.1
918	3.40	34.24	.80	27.26	81.9
1141	2.94	34.32	.83	27.37	71.6
1357	2.63	34.39	.74	27.45	64.0

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	20.26	33.33	23.44	445.0	.000	1.334
10	20.24	33.39	23.50	440.1	.044	1.290
20	19.53	33.49	23.75	415.3	.087	1.247
30	13.80	33.66	25.22	276.2	.126	1.209
50	9.90	33.65	25.93	207.8	.170	1.165
75	8.56	33.60	26.11	190.9	.219	1.115
100	7.85	33.73	26.32	171.2	.266	1.069
150	7.88	33.73	26.31	171.8	.354	.980
200	7.59	33.71	26.34	169.1	.439	.895
250	7.14	33.70	26.40	164.0	.523	.811
300	6.59	33.81	26.56	148.5	.601	.733
400	5.52	33.89	26.76	129.8	.738	.596
500	4.70	33.94	26.89	117.1	.860	.474
600	4.38	33.98	26.96	110.8	.974	.360
700	4.01	34.10	27.09	98.1	1.079	.255
800	3.72	34.21	27.21	87.1	1.170	.164
1000	3.20	34.27	27.31	77.8	1.334	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 77: 44°57'N., 165°01'W., August 16, 1955. Messenger time: 0449  
 GCT. Weather: 50, cloud coverage 9. Wind: 230°, 14 kt. Sea: 1-3 ft.  
 Wire angle: 07°. BT slide: 223

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	17.90	33.03	5.75	23.81	410.0
11	17.50	33.03	5.79	23.91	400.8
52	8.19	33.32	7.06	25.95	206.4
105	6.82	33.34	6.82	26.16	186.6
173	6.60	33.55	6.47	26.35	168.2
209	6.40	33.74	5.72	26.53	151.5
283	5.58	33.84	4.62	26.71	134.0
408	4.69	33.92	2.65	26.88	118.5
524	4.24	34.01	1.71	27.00	107.1
697	3.74	34.15	.99	27.16	91.7
924	3.21	34.25	.69	27.29	79.5
1151	2.84	34.34	.55	27.40	69.3
1368	2.54	34.39	.55	27.46	63.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	17.90	33.03	23.81	410.0	.000	1.256
10	17.56	33.03	23.89	402.1	.041	1.215
20	16.95	33.06	24.27	366.5	.079	1.177
30	10.93	33.28	25.47	251.7	.106	1.150
50	8.30	33.32	25.93	208.0	.152	1.104
75	7.50	33.32	26.05	197.0	.202	1.054
100	6.96	33.50	26.26	176.5	.251	1.006
150	7.02	33.49	26.25	178.1	.342	.914
200	6.57	33.69	26.46	157.5	.426	.830
250	5.83	33.81	26.66	139.1	.499	.757
300	5.44	33.85	26.73	131.8	.566	.690
400	4.78	33.91	26.86	120.2	.692	.565
500	4.33	33.99	26.97	109.7	.806	.451
600	4.01	34.06	27.06	101.1	.911	.345
700	3.72	34.16	27.17	90.7	1.007	.249
800	3.47	34.19	27.22	86.2	1.095	.161
1000	3.11	34.28	27.32	76.3	1.256	.000

Table 8.—Oceanographic station data, HMS Gr. 30 (cont'd)

Station 79: 46°29'N., 164°56'W., August 16, 1955. Messenger time: 1844  
 GCT. Weather: 45, fog. Wind: 260°, 14 kt. Sea: 1-3 ft. Wire angle:  
 25°. BT slide: 227

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	14.36	32.70	6.06	24.36	357.6
10	14.27	32.75	6.08	24.42	352.0
25	10.03	32.83	7.00	25.27	270.5
63	5.83	33.03	7.19	26.04	197.8
142	4.83	33.31	6.70	26.38	165.8
193	5.46	33.77	5.33	26.67	137.8
253	4.61	33.87	3.90	26.84	121.4
340	4.17	33.95	2.48	26.95	111.0
426	3.92	34.05	1.79	27.06	101.0
511	3.78	34.09	1.33	27.11	96.5
679	3.48	34.23	.91	27.25	83.2
679	3.48	34.42	.75	27.40	69.0
850	3.12	34.34	.74	27.37	71.8
1016	2.88	34.36		27.41	68.1

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	14.36	32.70	24.36	357.7	.000	1.122
10	14.27	32.75	24.42	352.2	.036	1.086
20	13.06	32.81	24.71	324.5	.070	1.052
30	8.83	32.85	25.48	250.7	.097	1.025
50	6.03	33.00	25.99	202.4	.141	.981
75	5.60	33.07	26.10	192.0	.191	.931
100	5.32	33.22	26.25	177.8	.237	.885
150	4.83	33.35	26.41	162.7	.322	.800
200	5.44	33.74	26.65	140.1	.397	.725
250	4.67	33.85	26.82	123.7	.462	.660
300	4.34	33.91	26.90	115.8	.521	.601
400	3.97	34.03	27.04	102.8	.631	.491
500	3.78	34.09	27.11	96.6	.731	.391
600	3.61	34.22	27.22	85.4	.818	.304
700	3.44	34.24	27.26	82.2	.902	.220
800	3.20	34.29	27.32	76.3	.982	.140
1000	2.87	34.36	27.41	68.1	1.122	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 80: 48°07'N., 164°55'W., August 17, 1955. Messenger time: 1043 GCT. Weather: 55, cloud coverage not recorded. Wind: 350, 14 kt. Sea: 1-3 ft. Wire angle: 22°. BT slide: 231

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	12.33	32.54	6.32	24.64	331.0
14	12.34	32.54	6.36	24.64	331.1
24	11.44	32.56	6.50	24.82	313.6
43	7.12	32.66	7.04	25.58	241.1
85	4.81	32.83	7.11	26.00	201.8
157	4.06	33.64	4.24	26.71	134.0
261	3.92	33.87	2.06	26.92	114.4
371	3.82	34.00	1.12	27.03	103.7
478	3.67	34.09	.71	27.12	95.5
635	3.38	34.20	.67	27.23	84.6
845	3.04	34.29	.59	27.34	74.8
1055	2.73	34.38	.69	27.43	65.6
1261	2.50	34.42	.75	27.49	60.6

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	12.33	32.54	24.64	330.9	.000	1.107
10	12.33	32.54	24.64	330.9	.033	1.074
20	12.02	32.54	24.70	325.3	.066	1.041
30	11.02	32.57	24.90	305.8	.097	1.010
50	6.30	32.69	25.71	228.9	.149	.959
75	5.04	32.80	25.95	206.2	.202	.905
100	4.82	33.06	26.18	184.5	.252	.856
150	4.05	33.58	26.67	137.7	.328	.779
200	4.08	33.75	26.81	125.1	.393	.714
250	3.92	33.84	26.89	116.8	.454	.654
300	3.88	33.92	26.96	110.3	.509	.598
400	3.80	34.04	27.07	100.5	.614	.494
500	3.61	34.12	27.15	92.8	.711	.397
600	3.40	34.18	27.22	86.3	.800	.307
700	3.25	34.23	27.27	81.2	.884	.223
800	3.12	34.27	27.31	77.1	.964	.144
1000	2.80	34.36	27.41	67.5	1.107	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 81: 49°29'N., 165°00'W., August 17, 1955. Messenger time: 2257 GCT. Weather: 02, cloud coverage 8. Wind: 360°, 09 kt. Sea: 1-3 ft. Wire angle: 21°. BT slide 234

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	11.27	32.52	6.56	24.82	313.5
18	11.04	32.50	6.63	24.85	311.4
37	7.72	32.57	7.09	25.43	255.7
64	5.03	32.66	7.28	25.84	216.7
129	3.88	33.21	5.00	26.40	164.0
174	4.24	33.68	2.57	26.73	132.1
203	4.20	33.77	2.05	26.81	124.9
309	3.90	33.93	1.02	26.97	109.9
419	3.74	34.02	.75	27.05	101.5
630	3.38	34.18	.57	27.22	86.2
873	2.97	34.25	.63	27.31	77.1
1198	2.58	34.34	.66	27.42	67.3
1435	2.36	34.43	.87	27.51	58.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	11.27	32.52	24.82	313.7	.000	1.136
10	11.30	32.52	24.82	314.0	.031	1.105
20	10.83	32.50	24.88	307.8	.063	1.074
30	10.06	32.51	25.02	294.5	.093	1.043
50	6.30	32.60	25.64	235.6	.144	.993
75	4.87	32.68	25.88	213.5	.198	.938
100	4.44	32.78	26.00	201.7	.250	.886
150	4.01	33.47	26.59	145.7	.337	.800
200	4.20	33.76	26.80	125.6	.403	.734
250	4.04	33.89	26.92	114.1	.462	.674
300	3.92	33.93	26.97	110.0	.518	.618
400	3.78	33.99	27.03	104.0	.625	.512
500	3.62	34.07	27.11	96.6	.725	.412
600	3.40	34.16	27.20	87.8	.817	.320
700	3.25	34.19	27.24	84.2	.902	.235
800	3.06	34.23	27.29	79.5	.984	.153
1000	2.80	34.27	27.34	74.4	1.136	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 83: 49°42'N., 162°25'W., August 18, 1955. Messenger time: 1156  
 GCT. Weather: O2, cloud coverage 8. Wind: 310°, 12 kt. Sea: 1-3 ft.  
 Wire angle: 04°. BT slide: 238

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	10.96	NG	6.61	-	-
32	7.69	32.59	7.10	25.45	253.8
45	5.78	32.59	7.30	25.70	230.0
84	4.74	32.72	7.22	25.92	209.2
142	4.09	33.62	2.98	26.70	135.0
232	4.00	33.86	1.05	26.90	116.0
349	3.85	33.98	.60	27.01	105.5
470	3.64	34.09	.54	27.12	95.3
585	3.44	34.14	.54	27.18	89.8
806	3.05	34.25	.55	27.30	77.9
928	2.87	34.25	.59	27.32	76.3
1157	2.56	34.34	.70	27.42	67.2
1374	2.37	34.40	.89	27.48	61.0

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	10.96	(32.54)	24.89	306.8	.000	1.115
10	10.99	32.55	24.90	306.4	.031	1.084
20	10.97	32.55	24.90	306.2	.062	1.052
30	8.00	32.59	25.41	258.0	.092	1.023
50	5.47	32.60	25.74	225.9	.139	.975
75	4.90	32.68	25.87	213.7	.194	.920
100	4.44	32.79	26.01	200.9	.246	.869
150	4.08	33.64	26.72	133.4	.325	.790
200	4.02	33.76	26.82	124.0	.389	.725
250	4.00	33.87	26.91	115.3	.448	.667
300	3.94	33.93	26.97	110.0	.504	.611
400	3.79	34.03	27.06	101.1	.609	.506
500	3.60	34.10	27.13	94.2	.706	.409
600	3.42	34.14	27.18	89.6	.798	.317
700	3.25	34.21	27.25	82.7	.884	.231
800	3.09	34.25	27.30	78.2	.963	.152
1000	2.70	34.25	27.33	75.0	1.115	.000



Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 84: 49°48'N., 159°40'W., August 19, 1955. Messenger time: 0008  
 GCT. Weather: 01, cloud coverage 7. Wind: 330', 13 kt. Sea: 3-5 ft.  
 Wire angle: 08°. BT slide: 242

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	11.09	32.54	6.63	24.87	309.1
30	8.05	32.69	7.05	25.48	251.3
45	5.26	32.78	7.26	25.91	209.9
74	4.52	32.80	7.24	26.01	200.9
132	3.98	33.34	4.53	26.49	154.9
183	4.26	33.83	2.02	26.85	121.0
272	4.04	33.95	.91	26.97	109.9
397	3.80	34.09	.57	27.10	97.6
517	3.63	34.20	.51	27.21	87.0
695	3.28	34.27	.48	27.30	78.4
923	2.90	34.36	.60	27.40	68.3
1147	2.62	34.42	.80	27.48	61.7
1363	2.39	34.48	.86	27.55	55.0

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	11.09	32.54	24.87	309.0	.000	1.062
10	11.10	32.54	24.87	309.3	.031	1.031
20	10.70	32.57	24.96	300.2	.062	1.000
30	8.05	32.69	25.48	251.3	.089	.973
50	5.00	32.78	25.94	207.1	.133	.929
75	4.50	32.80	26.01	200.9	.184	.878
100	4.04	32.84	26.08	193.5	.234	.829
150	4.36	33.66	26.70	134.3	.316	.746
200	4.25	33.83	26.85	120.9	.378	.684
250	4.12	33.92	26.93	112.8	.436	.626
300	4.00	34.00	27.01	105.4	.490	.572
400	3.80	34.09	27.10	96.8	.590	.472
500	3.68	34.16	27.17	90.3	.684	.378
600	3.47	34.24	27.26	82.4	.768	.294
700	3.30	34.27	27.30	78.7	.848	.214
800	3.10	34.31	27.35	73.8	.924	.138
1000	2.80	34.38	27.43	66.1	1.062	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 86: 49°35'N., 157°22'W., August 19, 1955. Messenger time: 1154 GCT. Weather: 02, cloud coverage not recorded. Wind: 280°, 09 kt. Sea: 1-3 ft. Wire angle: 08°. BT slide: 245

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	11.70	32.59	6.46	24.80	315.8
27	9.32	32.67	7.01	25.27	271.4
42	5.62	32.80	7.34	25.88	212.8
69	4.97	32.79	7.28	25.95	206.1
126	3.92	33.35	4.95	26.51	153.6
252	3.90	33.95	1.83	26.98	108.2
377	3.79	34.06	1.08	27.08	98.9
497	3.60	34.18	.62	27.20	88.2
630	3.41	34.29	.70	27.30	78.2
762	3.17	34.31	.72	27.34	74.4
1000	2.82	34.42	.65	27.46	63.2
1236	2.54	34.50	.70	27.55	54.8
1500	2.29	34.54	.83	27.60	49.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	11.70	32.59	24.80	315.9	.000	1.061
10	11.72	32.59	24.79	316.2	.032	1.029
20	11.68	32.59	24.80	315.7	.063	.998
30	8.78	32.69	25.37	261.9	.093	.968
50	5.30	32.79	25.91	209.8	.138	.922
75	4.84	32.79	25.97	204.9	.190	.871
100	4.55	32.79	25.99	202.1	.241	.820
150	3.90	33.50	26.62	142.3	.321	.740
200	3.96	33.80	26.86	120.1	.379	.682
250	3.90	33.94	26.98	109.0	.434	.627
300	3.85	33.98	27.01	105.5	.487	.574
400	3.73	34.07	27.10	97.6	.590	.471
500	3.60	34.15	27.17	90.5	.684	.377
600	3.44	34.27	27.28	80.0	.770	.291
700	3.26	34.30	27.32	76.1	.848	.213
800	3.07	34.32	27.36	72.8	.922	.139
1000	2.82	34.42	27.46	63.2	1.061	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 87: 48°04'N., 157°24'W., August 20, 1955. Messenger time: 0017  
 GCT. Weather: 50, cloud coverage 8. Wind: 290°, 10 kt. Sea: 1-3 ft.  
 Wire angle: 15°. BT slide: 249

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	12.42	32.61	6.35	24.68	327.5
18	11.22	32.63	6.68	24.91	304.9
28	6.77	32.83	7.41	25.76	224.0
42	5.72	32.82	7.30	25.89	212.1
63	5.46	32.87	7.16	25.96	205.4
104	5.16	33.10	6.98	26.17	185.0
211	4.68	33.81	4.35	26.79	126.8
315	4.24	33.91	2.47	26.91	115.0
417	3.96	34.01	1.78	27.03	104.3
628	3.58	34.19	.88	27.21	87.3
839	3.16	34.32	.66	27.35	73.6
1045	2.34	34.36	.68	27.41	67.8
1258	2.59	34.43	.72	27.49	60.6

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	12.42	32.61	24.68	327.4	.000	1.111
10	12.47	32.61	24.67	328.2	.033	1.078
20	10.10	32.67	25.14	283.5	.066	1.045
30	6.52	32.83	25.80	220.9	.089	1.022
50	5.53	32.85	25.93	207.9	.132	.979
75	5.45	32.89	25.98	203.9	.133	.928
100	5.24	33.04	26.12	190.3	.234	.877
150	5.08	33.45	26.46	157.9	.317	.794
200	4.72	33.81	26.78	127.1	.387	.724
250	4.48	33.87	26.86	120.1	.448	.663
300	4.33	33.91	26.90	115.8	.507	.604
400	3.99	34.00	27.02	105.2	.610	.502
500	3.80	34.10	27.11	96.0	.708	.402
600	3.59	34.13	27.20	88.0	.831	.310
700	3.40	34.22	27.25	83.4	.887	.224
800	3.21	34.29	27.32	76.4	.967	.144
1000	2.92	34.35	27.39	69.3	1.111	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 89: 46°28'N., 157°06'W., August 20, 1955. Messenger time: 1351 OCT. Weather: O2, cloud coverage not recorded. Wind: 310°, 09 kt. Sea: <1 ft. Wire angle: 00°. BT slide: 253

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	14.42	32.77	6.14	24.40	354.0
27	9.72	32.95	6.98	25.42	256.8
37	7.75	33.19	7.35	25.91	210.0
64	6.81	33.15	7.03	26.01	200.7
117	6.30	33.24	6.93	26.14	187.8
234	5.62	33.88	4.74	26.74	131.7
350	4.62	33.96	2.84	26.91	115.0
474	4.23	34.02	1.82	27.01	106.2
590	3.92	34.14	1.21	27.13	94.2
708	3.63	34.22	.88	27.22	85.4
936	3.17	34.30	.66	27.33	75.2
1165	2.78	34.40	.61	27.45	64.3
1383	2.51	34.45	.71	27.51	58.5

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	14.42	32.77	24.40	353.9	.000	1.181
10	14.42	32.77	24.40	353.9	.035	1.146
20	12.80	32.82	24.76	319.0	.071	1.110
30	9.34	32.99	25.51	247.9	.097	1.084
50	7.21	33.16	25.96	205.0	.140	1.041
75	6.75	33.15	26.02	199.9	.190	.991
100	6.32	33.17	26.09	193.1	.239	.942
150	6.20	33.50	26.36	167.1	.330	.852
200	5.98	33.82	26.65	140.2	.406	.775
250	5.48	33.89	26.76	129.3	.473	.708
300	5.02	33.92	26.84	122.1	.536	.646
400	4.44	33.98	26.95	111.5	.651	.531
500	4.19	34.05	27.03	103.5	.759	.423
600	3.83	34.16	27.15	92.1	.856	.325
700	3.66	34.21	27.21	86.4	.946	.235
800	3.42	34.26	27.28	80.5	1.029	.152
1000	3.02	34.34	27.38	70.9	1.181	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 90: 44°57'N., 157°26'W., August 21, 1955. Messenger time: 0446  
 GCT. Weather: 02, cloud coverage 7. Wind: calm. Sea: <1 ft. Wire  
 angle: 03°. BT slide: 257

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	16.36	33.09	5.89	24.22	371.0
11	16.12	33.06	5.93	24.25	368.1
24	12.67	33.26	6.60	25.13	284.0
35	10.46	33.33	7.78	25.56	240.3
65	8.36	33.37	6.85	25.96	205.0
109	7.50	33.45	6.66	26.15	187.3
218	7.22	33.93	5.53	26.56	148.0
328	5.89	33.93	4.01	26.74	131.0
435	4.80	33.93	2.57	26.87	119.0
652	3.95	34.07	1.17	27.07	99.7
870	3.40	34.23	.74	27.25	82.7
1081	3.00	34.33	.59	27.37	71.4
1300	2.68	34.38	.70	27.44	65.1

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	16.36	33.09	24.22	371.0	.000	1.275
10	16.13	33.06	24.25	368.2	.037	1.238
20	13.08	33.24	25.04	293.1	.071	1.204
30	11.10	33.32	25.47	251.8	.099	1.176
50	9.19	33.35	25.82	218.9	.146	1.129
75	8.07	33.38	26.01	200.3	.197	1.078
100	7.61	33.42	26.11	191.1	.246	1.029
150	7.38	33.68	26.35	168.4	.337	.939
200	7.30	33.84	26.48	155.6	.418	.857
250	6.90	33.93	26.61	143.8	.493	.782
300	6.24	33.92	26.69	136.2	.562	.713
400	5.09	33.93	26.84	122.0	.691	.585
500	4.45	33.95	26.92	113.9	.808	.467
600	4.10	34.01	27.01	105.5	.917	.358
700	3.79	34.11	27.12	95.1	1.018	.257
800	3.59	34.16	27.18	89.6	1.111	.164
1000	3.15	34.29	27.33	75.7	1.275	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 93: 43°23'N., 157°24'W., August 21, 1955. Messenger time: 1706 GCT. Weather: 02, cloud coverage 1. Wind: 140°, 06 kt. Sea: < 1 ft. Wire angle: 03°. BT slide: 261

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	18.74	33.48	5.39	23.95	397.0
14	18.74	33.51	6.85	23.97	395.0
27	14.25	33.53	7.50	25.02	294.8
42	11.14	33.62	7.01	25.70	230.5
95	8.31	33.58	6.45	26.13	189.0
105	8.09	33.57	6.24	26.16	186.4
216	8.06	33.86	5.98	26.39	164.7
321	6.90	33.91	5.02	26.59	145.2
487	4.96	33.93	3.83	26.85	120.5
651	4.17	34.02	1.83	27.01	105.6
867	3.57	34.16	.88	27.18	89.4
1079	3.08	34.27	.50	27.32	76.7
1296	2.74	34.36	.60	27.42	67.1

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000}-\Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	18.74	33.48	23.95	397.0	.000	1.346
10	18.74	33.50	23.96	395.7	.040	1.306
20	16.20	33.53	24.59	335.4	.079	1.267
30	13.84	33.54	25.11	286.0	.109	1.236
50	10.19	33.62	25.86	214.5	.156	1.189
75	8.69	33.60	26.09	193.0	.206	1.140
100	8.20	33.57	26.14	188.1	.254	1.092
150	7.95	33.73	26.30	172.6	.343	1.003
200	8.00	33.77	26.33	170.4	.429	.916
250	7.80	33.88	26.44	159.5	.511	.834
300	7.16	33.91	26.56	148.6	.588	.757
400	5.89	33.92	26.74	131.8	.728	.618
500	4.84	33.94	26.87	118.6	.852	.493
600	4.34	33.99	26.97	109.6	.966	.380
700	4.00	34.04	27.04	102.4	1.072	.274
800	3.73	34.09	27.11	96.2	1.170	.175
1000	3.23	34.23	27.27	81.0	1.346	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 94: 41°56'N., 157°22'W., August 22, 1955. Messenger time: 0258  
 GCT. Weather: 03, cloud coverage 6. Wind: 150°, 09 kt. Sea: 1-3 ft.  
 Wire angle: 11°. BT slide: 265

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	20.57	33.86	5.59	23.76	414.5
20	16.88	33.75	5.58P	24.61	334.3
34	13.66	33.87	8.00	25.41	258.0
45	11.35	33.82	7.80	25.82	219.1
66	9.70	33.84	6.50	26.12	190.5
110	9.26	33.91	6.50	26.24	178.5
213	8.90	34.00	5.93	26.37	166.3
322	7.62	33.98	4.88	26.55	149.6
426	6.24	33.97	2.58Q	26.73	132.3
640	4.48	34.08	1.38	27.03	104.3
854	3.71	34.22	.77	27.22	86.2
1062	3.21	34.32	.58	27.34	74.1
1276	2.82	34.40	.47	27.44	64.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000}-\Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	20.57	33.86	23.76	414.6	.000	1.337
10	20.44	33.86	23.80	411.4	.041	1.296
20	16.88	33.75	24.60	334.3	.082	1.255
30	14.32	33.85	25.25	272.8	.112	1.225
50	10.95	33.82	25.89	212.3	.159	1.178
75	9.48	33.87	26.18	184.9	.208	1.128
100	9.27	33.90	26.23	179.6	.253	1.084
150	9.00	34.00	26.36	167.7	.340	.997
200	8.88	34.00	26.38	166.0	.424	.913
250	8.76	34.00	26.39	164.2	.506	.830
300	7.99	33.98	26.49	154.6	.586	.751
400	6.60	33.97	26.68	136.8	.731	.606
500	5.46	33.98	26.84	122.2	.859	.478
600	4.73	34.05	26.97	109.1	.974	.363
700	4.20	34.12	27.09	98.4	1.076	.260
800	3.82	34.19	27.18	89.5	1.169	.168
1000	3.38	34.28	27.30	78.7	1.337	.000

Table 8.--Oceanographic station data, HMS Gr. 30 (cont'd)

Station 96. 40°27'N., 157°31'W., August 22, 1955. Messenger time: 1437  
 GCT. Weather: 20, cloud coverage not recorded. Wind: 190°, 10 kt. Sea:  
 <1 ft. Wire angle: 08°. BT slide: 269

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	21.68	33.79	5.36	23.41	448.1
21	16.38	33.74	7.16	24.71	324.0
37	13.06	33.79	7.43	25.46	252.5
68	10.58	33.84	6.26	25.96	205.0
136	8.96	33.84	6.15	26.24	179.0
252	8.39	34.04	5.35	26.48	155.8
376	6.67	33.96	4.24	26.67	138.3
499	5.27	33.98	2.83	26.86	120.1
630	4.46	34.09	1.79	27.04	103.3
763	3.94	34.19	1.03	27.17	90.6
1001	3.30	34.31	.51	27.33	75.7
1239	2.84	34.40	.36	27.44	64.8
1502	2.49	34.47	.40	27.53	56.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta^1 D$	$\Delta^1 D_{1000} - \Delta^1 D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	21.68	33.79	23.41	448.3	.000	1.338
10	21.77	33.79	23.38	451.0	.045	1.293
20	17.20	33.74	24.52	342.2	.090	1.248
30	14.22	33.77	25.21	276.4	.119	1.219
50	11.65	33.82	25.76	224.6	.169	1.170
75	10.37	33.84	26.01	201.1	.221	1.118
100	9.68	33.84	26.12	190.2	.270	1.069
150	8.63	33.86	26.30	172.7	.361	.978
200	8.81	34.02	26.40	163.5	.445	.894
250	8.39	34.04	26.48	155.8	.524	.814
300	7.80	34.02	26.55	148.9	.600	.738
400	6.36	33.96	26.71	134.5	.743	.595
500	5.26	33.98	26.86	120.0	.869	.469
600	4.63	34.06	26.99	107.3	.983	.355
700	4.18	34.15	27.11	95.8	1.084	.254
800	3.80	34.20	27.19	85.5	1.176	.162
1000	3.30	34.31	27.33	75.6	1.338	.000



Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 97: 38°57'N., 157°30'W., August 23, 1955. Messenger time: 0202  
 GCT. Weather: 02, cloud coverage 2. Wind: 090°, 07 kt. Sea: <1 ft.  
 Wire angle: 05°. BT slide: 258A

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	23.70	34.11	5.10	23.08	480.0
19	22.12	34.14	5.51	23.55	434.7
32	15.68	34.13	7.34	25.17	280.5
44	14.42	34.13	7.38	25.45	254.3
66	11.98	34.16	6.24	25.96	205.2
112	11.22	34.19	5.75	26.12	189.8
219	9.78	34.11	5.65	26.31	171.8
329	8.72	34.11	5.22	26.48	155.6
434	7.07	34.02	4.41	26.66	138.8
651	4.75	34.02	2.24	26.95	111.5
869	3.82	34.20	.93	27.19	88.7
1082	3.24	34.31	.42	27.33	75.1
1300	2.81	34.40	.32	27.44	64.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	23.70	34.11	23.08	480.0	.090	1.425
10	23.41	34.12	23.18	471.2	.048	1.377
20	20.40	34.13	24.01	390.7	.094	1.330
30	16.09	34.13	25.08	289.0	.126	1.299
50	13.26	34.14	25.69	230.7	.178	1.247
75	11.63	34.18	26.04	197.8	.230	1.194
100	11.30	34.19	26.11	191.3	.279	1.146
150	10.78	34.17	26.19	183.6	.373	1.052
200	10.07	34.13	26.28	175.0	.462	.963
250	9.45	34.11	26.37	166.7	.547	.878
300	9.03	34.11	26.44	160.1	.629	.796
400	7.60	34.05	26.61	144.0	.780	.645
500	6.30	33.99	26.74	131.6	.917	.507
600	5.26	33.99	26.87	119.2	1.043	.382
700	4.40	34.08	27.03	103.5	1.154	.270
800	4.02	34.16	27.14	93.7	1.252	.173
1000	3.48	34.27	27.28	80.3	1.425	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 99: 37°26'N., 157°30'W., August 23, 1955. Messenger time: 1356  
 GCT. Weather: O2, cloud coverage 1. Wind: 120', 08 kt. Sea: <1 ft.  
 Wire angle: 05°. BT slide: 262A

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.09	34.39	4.95	23.18	470.6
13	23.92	34.39	4.96	23.23	465.9
27	22.42	34.28	5.23	23.57	432.5
42	16.18	34.14	6.08	25.07	290.3
89	13.02	34.11	5.75	25.72	228.3
163	11.30	34.11	5.39	26.05	197.2
268	10.23	34.14	5.15	26.26	176.8
374	8.85	34.09	4.72	26.45	158.9
483	6.92	34.02	3.84	26.68	136.9
646	5.04	34.04	2.42	26.93	113.1
862	3.88	34.22	.90	27.20	87.7
1071	3.26	34.33	.38	27.35	73.8
1287	2.84	34.42	.32	27.46	63.3

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.09	34.39	23.18	470.6	.000	1.523
10	23.96	34.39	23.21	467.0	.047	1.476
20	23.27	34.35	23.39	450.5	.093	1.429
30	20.40	34.18	24.05	387.1	.138	1.385
50	15.54	34.14	25.21	276.7	.199	1.324
75	13.61	34.12	25.60	239.1	.263	1.260
100	12.76	34.11	25.77	223.5	.320	1.202
150	11.50	34.11	26.01	200.5	.426	1.097
200	11.02	34.12	26.11	191.4	.523	1.000
250	10.47	34.14	26.22	180.6	.616	.907
300	9.87	34.13	26.31	171.6	.704	.819
400	8.40	34.08	26.51	153.0	.867	.655
500	6.64	34.01	26.71	134.1	1.011	.512
600	5.48	34.00	26.85	120.9	1.138	.385
700	4.66	34.09	27.01	105.4	1.251	.272
800	4.13	34.17	27.13	93.9	1.350	.172
1000	3.47	34.28	27.29	79.5	1.523	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 100: 35°56'N., 157°30'W., August 24, 1955. Messenger time: 0030  
 GCT. Weather: 02, cloud coverage 2. Wind: 100°, 09 kt. Sea: <1 ft.  
 Wire angle: 02°. BT slide: 266A

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.47	34.51	4.96	23.15	472.8
19	23.04	34.26	5.16	23.38	450.6
29	21.78	34.31	5.40	23.78	413.2
39	17.60	34.13	6.06	24.72	323.0
66	15.38	34.16	6.04	25.26	271.9
107	13.08	34.13	5.96	25.73	227.9
216	10.84	34.14	5.13	26.15	186.8
326	9.40	34.11	4.75	26.38	165.8
432	7.98	34.04	4.11	26.54	149.8
649	4.91	34.02	2.09	26.93	113.2
866	3.79	34.20	.74	27.19	88.4
1078	3.18	34.34	.34	27.36	72.3
1295	2.82	34.44	.39	27.48	61.7

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.47	34.51	23.15	472.9	.000	1.547
10	24.31	34.47	23.17	471.4	.047	1.500
20	22.98	34.26	23.40	449.0	.094	1.453
30	21.58	34.31	23.83	408.1	.138	1.409
50	16.31	34.14	25.04	293.3	.206	1.342
75	14.83	34.15	25.37	261.1	.274	1.273
100	13.44	34.13	25.65	235.0	.337	1.211
150	11.98	34.13	25.94	207.3	.445	1.102
200	11.10	34.14	26.11	191.4	.545	1.002
250	10.36	34.14	26.24	179.0	.637	.910
300	9.73	34.13	26.34	169.6	.724	.823
400	8.38	34.06	26.50	154.2	.886	.661
500	7.04	34.01	26.66	139.3	1.033	.515
600	5.60	34.00	26.83	122.5	1.163	.384
700	4.48	34.07	27.02	105.0	1.276	.271
800	4.00	34.16	27.14	93.5	1.375	.172
1000	3.38	34.27	27.29	79.4	1.547	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 102: 34°28'N., 157°30'W., August 24, 1955. Messenger time: 1207 GCT. Weather: O2, cloud coverage not recorded. Wind: 100°, 14 kt. Sea: 1-3 ft. Wire angle: 11°. BT slide: 270

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.16	34.60	4.92	23.31	457.5
21	24.18	34.59	4.92	23.30	458.8
32	21.62	34.43	5.63	23.91	400.5
57	16.14	34.41	6.25	25.28	269.8
115	13.19	34.31	5.74	25.84	216.8
231	11.64	34.27	5.55	26.11	191.2
345	10.02	34.20	5.14	26.34	168.8
464	8.16	34.09	4.57	26.56	148.7
578	6.25	34.00	3.50	26.75	129.9
694	4.89	34.04	2.17	26.95	111.5
920	3.78	34.21	.69	27.20	87.6
1146	3.14	34.36	.27	27.38	70.4
1361	2.86	34.46	.39	27.49	60.5

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.16	34.60	23.31	457.5	.000	1.576
10	24.16	34.59	23.31	458.0	.046	1.530
20	24.17	34.59	23.31	458.3	.092	1.484
30	22.48	34.48	23.71	419.6	.137	1.439
50	16.83	34.41	25.12	285.2	.201	1.375
75	14.57	34.37	25.60	239.6	.266	1.310
100	13.72	34.34	25.75	225.1	.324	1.252
150	12.58	34.30	25.95	206.0	.431	1.145
200	11.97	34.28	26.06	196.1	.532	1.044
250	11.41	34.26	26.14	188.0	.628	.948
300	10.72	34.23	26.24	178.3	.719	.857
400	9.19	34.15	26.44	159.5	.888	.688
500	7.54	34.05	26.62	143.1	1.038	.538
600	6.00	34.00	26.79	127.0	1.172	.404
700	4.84	34.04	26.95	111.0	1.291	.284
800	4.22	34.11	27.08	99.4	1.396	.180
1000	3.52	34.25	27.26	82.2	1.576	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 103: 32°56'N., 157°29'W., August 24, 1955 (second cast August 25, 1955). Messenger time: first cast 2321 GCT, second cast 0004 GCT. Weather: 02, cloud coverage 2. Wind: 110°, 14 kt. Sea: 3-5 ft. Wire angle: first cast 14°, second cast 28°. BT slide: 274

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	24.22	35.08	4.35	23.66	424.7
12	24.16	35.08	4.36	23.67	423.0
38	22.71	34.77	5.22	24.01	390.6
52	18.73	34.70	5.73	24.88	308.5
65	17.80	34.70	5.69	25.11	286.3
112	14.48	34.40	5.53	25.64	235.7
225	11.83	34.25	5.18	26.06	196.1
338	10.50	34.20	5.08	26.26	176.8
455	8.60	34.09	4.55	26.49	155.3
680	5.10	34.03	2.31	26.92	114.5
858	4.11	34.16	.93	I	
1070	3.38	34.33	.38	II	
1274	2.96	34.42	.38	27.13	94.5
				27.34	74.9
				27.45	64.3

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.22	35.08	23.66	424.7	.000	1.625
10	24.16	35.08	23.67	423.0	.042	1.582
20	24.10	35.08	23.69	421.3	.085	1.540
30	24.02	35.07	23.71	419.9	.127	1.498
50	18.85	34.71	24.86	310.3	.200	1.425
75	17.10	34.65	25.24	273.8	.272	1.352
100	15.15	34.46	25.54	245.0	.337	1.288
150	13.22	34.32	25.84	216.7	.452	1.173
200	12.18	34.26	26.00	201.5	.556	1.069
250	11.57	34.24	26.10	192.3	.654	.971
300	11.00	34.22	26.19	183.7	.748	.877
400	9.53	34.14	26.38	165.6	.922	.702
500	7.88	34.06	26.57	147.0	1.078	.546
600	6.28	34.00	26.75	130.3	1.217	.408
700	4.96	34.05	26.95	111.4	1.337	.287
800	4.40	34.12	27.07	100.4	1.443	.182
1000	3.61	34.27	27.26	81.7	1.625	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 105: 31°28'N., 157°30'W., August 25, 1955. Messenger time: 1233 GCT. Weather: 02, cloud coverage 1. Wind: 080°, 16 kt. Sea: 3-5 ft. Wire angle: 07°. BT slide: 278

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	24.46	35.48	4.80	23.88	402.9
48	20.20	34.94	5.64	24.68	327.1
63	18.22	34.72	5.74	25.02	294.4
79	17.04	34.68	5.69	25.28	270.3
147	13.81	34.38	5.47	25.77	223.9
231	12.24	34.31	5.27	26.03	198.8
346	10.69	34.23	5.06	26.25	177.8
468	8.67	34.13	4.58	26.51	153.3
585	6.56	34.00	3.53	26.71	133.8
699	5.12	34.02	1.85	26.91	115.5
926	3.91	34.23	.50	27.21	87.3
1153	3.35	34.41	.33	27.40	68.7
1370	3.02	34.51	.68	27.51	58.1

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.46	35.48	23.89	402.6	.000	1.638
10	24.52	35.50	23.88	403.2	.040	1.598
20	24.61	35.54	23.89	402.7	.080	1.558
30	24.69	35.58	23.89	402.1	.121	1.518
50	19.85	34.90	24.74	321.1	.195	1.444
75	17.28	34.70	25.23	274.3	.268	1.370
100	15.80	34.56	25.47	251.7	.334	1.304
150	13.74	34.38	25.78	222.5	.452	1.187
200	12.76	34.33	25.94	207.2	.559	1.080
250	11.99	34.30	26.07	195.0	.659	.979
300	11.34	34.27	26.16	186.1	.754	.884
400	9.81	34.18	26.36	167.1	.931	.707
500	8.12	34.10	26.57	147.4	1.088	.550
600	6.26	34.00	26.75	130.1	1.228	.410
700	5.09	34.02	26.91	115.1	1.351	.288
800	4.42	34.11	27.06	101.4	1.459	.179
1000	3.73	34.28	27.26	81.9	1.638	.000

Table 8.—Oceanographic station data, HMS Cr. 30 (cont'd)

Station 106: 29°51'N., 157°30'W., August 26, 1955. Messenger time: first cast 0015 GCT, second cast 0042 GCT. Weather: 02, cloud coverage 2. Wind: 090°, 18 kt. Sea: 3-5 ft. Wire angle: first cast 21°, second cast 25°. BT slide 282

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.50	35.50	4.80	23.89	402.5
19	24.44	35.50	4.80	23.91	400.8
49	24.34	35.50	4.84	23.94	398.0
67	19.78	35.06	5.50	24.88	307.8
105	18.38	35.00	5.29	25.20	278.1
199	14.53	34.45	4.79	I 25.67	233.2
292	12.14	34.34	4.84	II 26.07	194.8
394	10.12	34.19	4.64	26.32	171.3
592	6.52	34.01	3.29	26.73	132.7
791	4.57	34.14	1.05	27.06	100.7
987	3.77	34.27	.38	27.25	82.9
1188	3.30	34.45	.69	27.44	65.2
1382	2.96	34.50	1.02	27.51	58.3

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.50	35.50	23.89	402.5	.000	1.710
10	24.47	35.50	23.90	401.7	.040	1.670
20	24.43	35.50	23.91	400.4	.080	1.630
30	24.40	35.50	23.92	399.7	.120	1.590
50	24.33	35.50	23.94	397.6	.200	1.510
75	19.45	35.05	24.96	300.3	.280	1.430
100	18.53	35.01	25.17	280.8	.352	1.357
150	16.67	34.74	25.41	257.4	.487	1.223
200	14.52	34.45	25.67	232.9	.609	1.101
250	13.28	34.39	25.88	212.6	.721	.989
300	11.96	34.33	26.10	192.3	.822	.888
400	10.01	34.18	26.33	170.4	1.002	.708
500	8.12	34.08	26.56	149.0	1.161	.549
600	6.44	34.01	26.74	131.7	1.300	.410
700	5.39	34.03	26.89	117.7	1.425	.285
800	4.48	34.14	27.07	99.8	1.533	.176
1000	3.72	34.28	27.26	81.8	1.710	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 108: 28°27'N., 157°31'W., August 26, 1955. Messenger time: 1211  
 GCT. Weather: O2, cloud coverage 1. Wind: 080°, 19 kt. Sea: 3-5 ft.  
 Wire angle: 25°. BT slide: 286

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(°/oo)	(ml/L)	(g/L)	(cl/ton)
0	24.76	35.49	4.74	23.80	410.6
37	24.78	35.48	4.76	23.79	412.0
52	22.23	35.33	5.34	24.42	351.8
96	19.28	35.08	5.38	25.03	293.8
153	16.83	34.76	5.06	25.39	259.7
211	14.72	34.58	5.06	25.73	227.4
318	11.58	34.26	4.89	26.11	191.1
428	9.72	34.16	4.62	26.36	167.2
533	7.41	34.01	3.94	26.61	144.3
640	5.84	33.99	2.79	26.80	125.9
640	5.75	33.99	-	26.81	124.9
852	4.22	34.20	.78	27.15	92.6
1063	3.58	34.39	.40	27.36	72.2
1266	3.11	34.47	.67	27.47	61.9

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(°/oo)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.76	35.49	23.80	410.7	.000	1.735
10	24.76	35.49	23.80	410.7	.041	1.694
20	24.76	35.49	23.80	410.7	.082	1.653
30	24.77	35.48	23.79	411.7	.123	1.612
50	24.00	35.44	23.99	392.6	.206	1.529
75	20.28	35.17	24.83	312.5	.289	1.446
100	19.16	35.07	25.05	291.8	.364	1.371
150	16.93	34.76	25.36	262.4	.502	1.233
200	15.05	34.61	25.68	232.1	.625	1.110
250	13.58	34.45	25.87	214.2	.737	.998
300	12.03	34.30	26.06	195.7	.839	.896
400	10.23	34.20	26.31	172.2	1.022	.713
500	8.17	34.06	26.53	151.0	1.184	.551
600	6.32	33.98	26.72	132.8	1.325	.410
700	5.27	34.03	26.90	116.4	1.449	.286
800	4.50	34.13	27.06	100.8	1.559	.176
1000	3.75	34.34	27.31	77.5	1.735	.000



Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 109: 26°58'N., 157°27'W., August 26, 1955. Messenger time: 2343 GCT. Weather: O2, cloud coverage 2. Wind: 070°, 19 kt. Sea: 5-8 ft. Wire angle: 24°. BT slide: 290

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.48	35.34	4.84	23.77	413.5
25	24.39	35.33	4.84	23.79	411.7
58	23.02	35.29	5.17	24.17	375.7
78	21.92	35.29	5.08	24.48	346.3
106	21.11	35.32	4.91	24.72	323.1
211	18.04	34.93	4.75	25.23	275.2
316	13.73	34.37	4.74	25.76	224.0
426	10.84	NG	4.80	-	-
531	8.48	34.04	4.18	26.47	157.2
638	6.29	33.96	2.79	26.72	133.5
847	4.46	34.18	.70	27.11	96.6
1056	3.82	34.38	.78	27.33	75.2
1269	3.39	34.51	1.22	27.48	61.4

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.48	35.34	23.77	413.3	.000	1.905
10	24.44	35.34	23.78	412.5	.041	1.863
20	24.39	35.33	23.79	411.5	.082	1.822
30	24.40	35.32	23.78	412.7	.124	1.781
50	23.77	35.30	23.96	396.0	.206	1.699
75	22.02	35.29	24.45	349.0	.298	1.607
100	21.27	35.32	24.68	327.1	.382	1.523
150	19.82	35.18	24.97	300.0	.538	1.366
200	18.36	34.98	25.18	279.1	.682	1.223
250	16.55	34.73	25.43	255.5	.816	1.089
300	14.30	34.44	25.71	229.1	.937	.968
400	11.47	34.20	26.09	193.3	1.147	.757
500	9.11	34.07	26.39	164.8	1.325	.580
600	7.04	33.98	26.63	141.8	1.478	.427
700	5.54	33.99	26.83	122.5	1.609	.296
800	4.71	34.10	27.02	105.2	1.723	.182
1000	3.99	34.32	27.27	81.1	1.905	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 111: 25°30'N., 157°33'W., August 27, 1955. Messenger time: 1202 GCT. Weather: 02, cloud coverage 1. Wind: 070°, 18 kt. Sea: 3-5 ft. Wire angle: 23°. BT slide: 294

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.16	35.45	4.81	23.95	396.5
24	24.18	35.42	4.82	23.92	399.2
47	24.20	35.44	4.81	23.94	398.3
76	21.64	35.35	5.29	24.60	334.7
141	19.11	35.15	4.80	25.13	284.8
208	16.72	34.78	4.79	25.43	255.7
313	12.75	34.32	4.74	25.94	207.7
422	10.29	34.21	4.60	26.31	172.5
525	8.00	34.09	3.87	26.58	146.4
629	6.02	34.03	2.18	26.81	125.1
837	4.56	34.29	.65	27.18	89.3
1044	3.86	34.42	.92	27.36	72.5
1246	3.36	34.50	1.27	27.47	61.8

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.16	35.45	23.95	396.5	.000	1.777
10	24.16	35.44	23.95	397.1	.040	1.737
20	24.17	35.43	23.94	398.0	.079	1.697
30	24.18	35.43	23.93	398.4	.119	1.657
50	24.16	35.44	23.95	397.1	.199	1.578
75	21.68	35.35	24.59	335.5	.288	1.489
100	20.68	35.30	24.83	313.1	.369	1.408
150	18.79	35.10	25.17	280.7	.516	1.260
200	17.02	34.83	25.40	259.0	.651	1.126
250	15.02	34.54	25.63	236.5	.775	1.002
300	13.15	34.35	25.88	213.1	.887	.890
400	10.79	34.23	26.23	179.3	1.082	.695
500	8.56	34.11	26.51	153.2	1.247	.530
600	6.40	34.03	26.76	129.8	1.387	.389
700	5.30	34.10	26.95	111.6	1.507	.269
800	4.72	34.25	27.13	94.0	1.609	.167
1000	4.00	34.39	27.32	76.1	1.777	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 112: 23°54'N., 157°32'W., August 27, 1955. Messenger time : 2327  
 GCT. Weather: 02, cloud coverage 2. Wind: 080°, 22 kt. Sea: 5-8 ft. Wire  
 angle: 20°. BT slide: 298

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.48	35.04	4.81	23.55	435.0
34	24.46	35.04	4.80	23.56	434.4
69	24.19	35.24	4.80	23.79	412.4
93	22.39	35.31	5.13	24.36	357.5
136	20.34	35.30	4.96	24.92	304.7
224	16.60	34.74	4.58	25.43	256.0
336	12.23	34.25	4.62	25.98	203.1
454	9.22	34.14	4.24	26.43	160.8
567	6.72	34.05	2.83	26.73	132.2
679	5.32	34.13	1.48	26.97	109.6
900	4.13	34.32	.85	27.25	83.1
1122	3.57	34.48	.73	27.44	65.3
1337	3.19	34.55	1.24	27.53	56.5

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.48	35.04	23.55	435.0	.000	1.830
10	24.47	35.04	23.55	434.6	.043	1.786
20	24.47	35.04	23.55	434.6	.087	1.743
30	24.46	35.04	23.55	434.5	.130	1.699
50	24.46	35.14	23.63	427.2	.217	1.613
75	23.60	35.29	24.00	392.0	.322	1.508
100	22.01	35.32	24.48	346.6	.413	1.416
150	19.67	35.24	25.05	291.8	.572	1.258
200	17.82	34.94	25.29	269.2	.712	1.117
250	15.38	34.57	25.58	241.5	.840	.990
300	13.41	34.35	25.82	218.3	.954	.875
400	10.51	34.18	26.24	178.5	1.152	.677
500	8.21	34.10	26.56	148.8	1.314	.516
600	6.14	34.05	26.81	125.0	1.451	.379
700	5.19	34.16	27.01	105.7	1.565	.265
800	4.60	34.25	27.15	92.8	1.664	.166
1000	3.83	34.40	27.35	73.7	1.830	.000

Table 8.--Oceanographic station data, HMS Cr. 30 (cont'd)

Station 114: 22°30'N., 157°36'W., August 28, 1955. Messenger time: 1055 GCT. Weather: 25, cloud coverage 2. Wind: 060°, 14 kt. Sea: 5-8 ft. Wire angle: 24°. BT slide: 302

OBSERVED				COMPUTED	
DEPTH	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_t$
(m)	(°C)	(‰)	(ml/L)	(g/L)	(cl/ton)
0	24.34	34.86	4.76	23.45	444.1
18	24.36	34.87	4.79	23.46	443.7
36	24.36	34.87	4.79	23.46	443.7
60	24.26	34.92	4.86	23.52	437.3
130	21.72	35.16	4.80	24.44	350.2
206	19.70	35.18	4.59	25.00	297.0
309	13.07	34.31	4.44	25.86	214.4
417	9.32	34.13	4.18	26.41	163.2
520	7.18	34.13	2.00	26.73	132.3
626	6.13	34.22	1.10	26.94	112.2

INTERPOLATED			COMPUTED			
DEPTH	T	S	$\sigma_t$	$\delta_t$	$\Delta'D$	$\Delta'D_{1000} - \Delta'D$
(m)	(°C)	(‰)	(g/L)	(cl/ton)	(dyn. m)	(dyn. m)
0	24.34	34.86	23.45	444.0	-	-
10	24.35	34.86	23.45	444.2	-	-
20	24.36	34.87	23.46	443.4	-	-
30	24.36	34.87	23.46	443.4	-	-
50	24.35	34.88	23.47	442.8	-	-
75	23.71	35.05	23.78	412.4	-	-
100	22.73	35.11	24.12	380.8	-	-
150	21.14	35.18	24.61	333.9	-	-
200	19.82	35.19	24.97	299.3	-	-
250	16.56	34.75	25.45	254.3	-	-
300	13.48	34.36	25.82	219.0	-	-
400	9.77	34.14	26.34	169.4	-	-
500	7.50	34.12	26.68	137.3	-	-
600	6.36	34.18	26.88	118.0	-	-

# APPENDIX

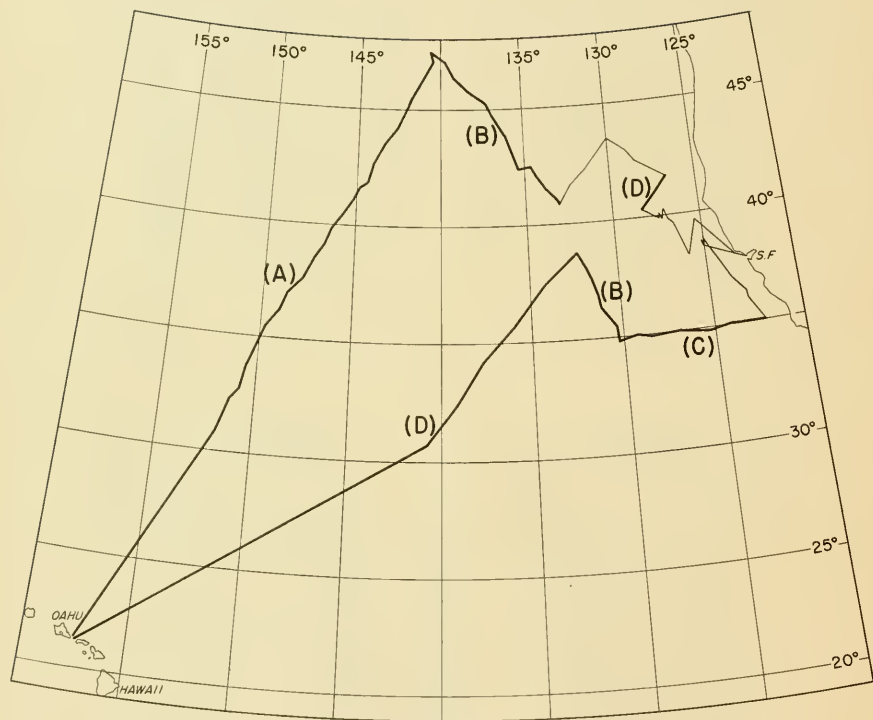
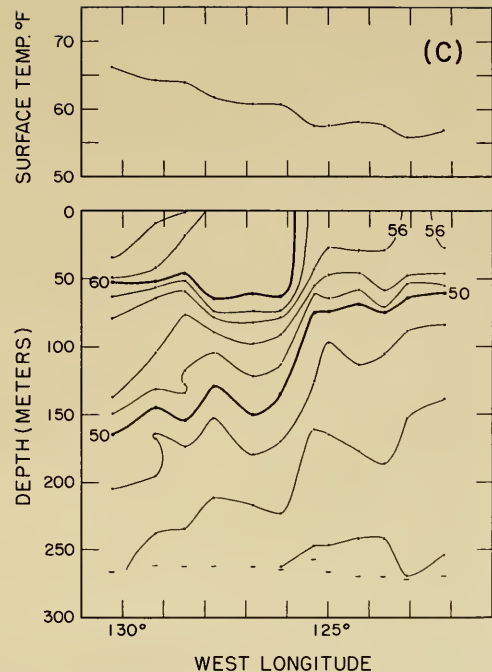
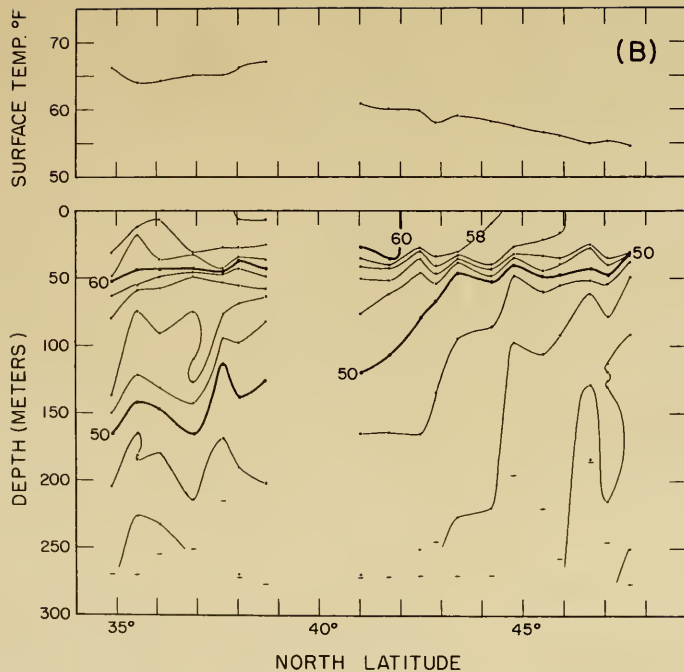


Fig. 7.--Track chart, JRM Cruise 26, July-September 1955. Heavy lines and letters designate location of temperature sections shown in figures 8 to 11.



Figs. 9 (left) and 10(right). --Surface bucket temperatures (upper panels) and temperature-depth sections from BT observations (lower panels). Sections B and C (see figure 7), JRM Cruise 26, July-September 1955.

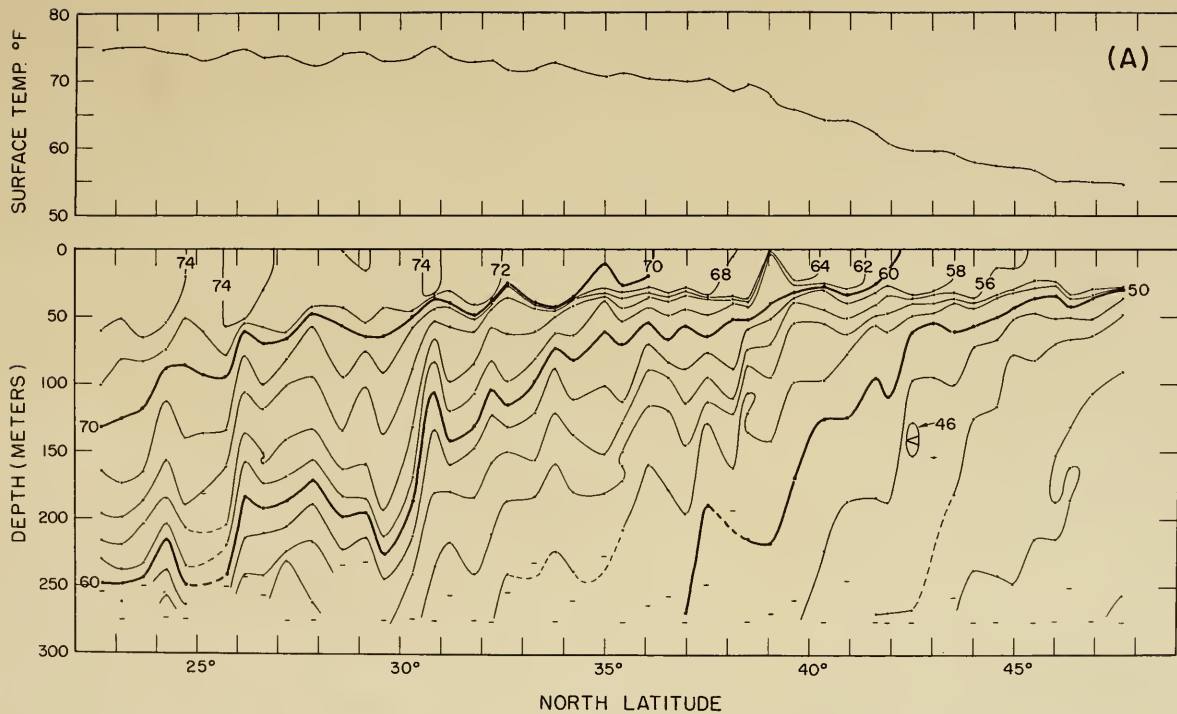


Fig. 8.--Surface bucket temperatures (upper panel) and temperature-depth section from BT observations (lower panel). Section A (see figure 7), JRM Cruise 26, July-September 1955.

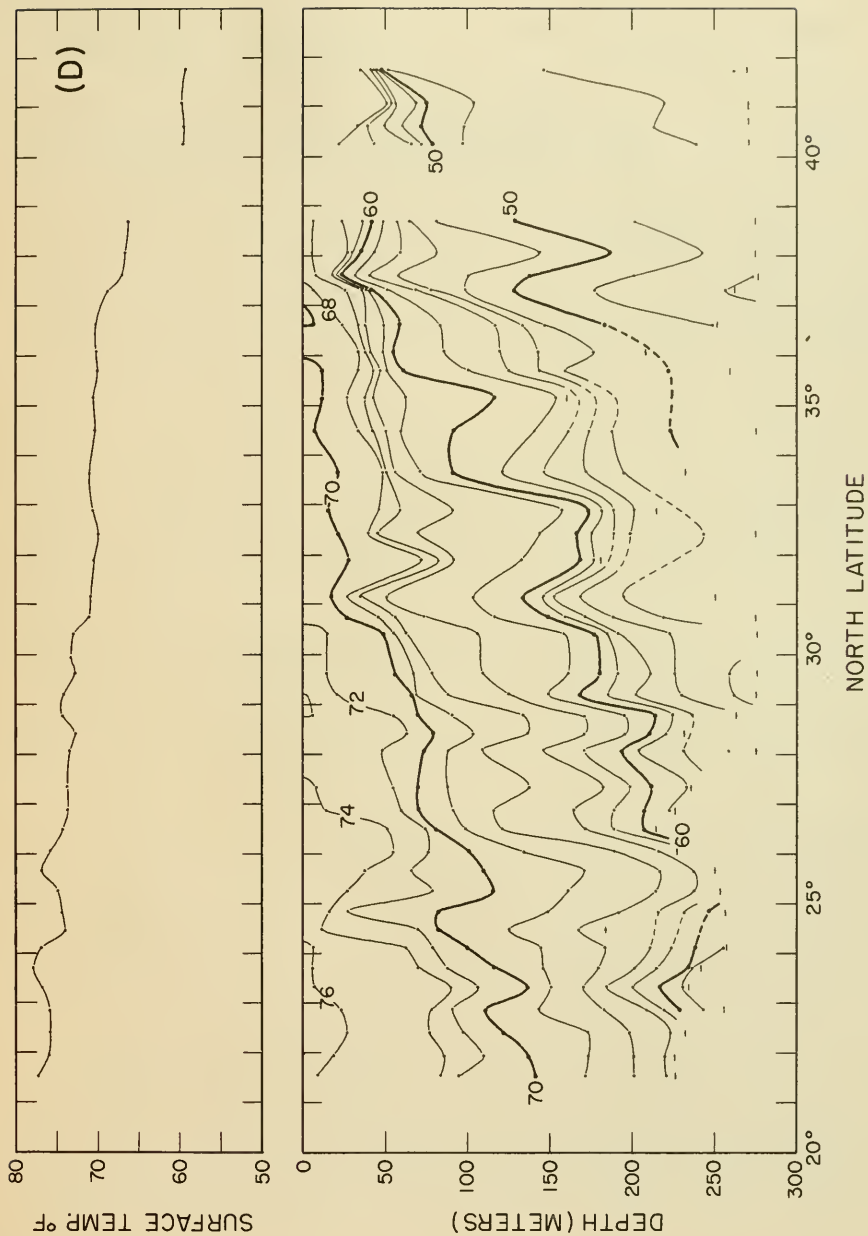


Fig. 11.--Surface bucket temperatures (upper panel) and temperature-depth section (lower panel), Section D (see figure 7), JRM Cruise 26, July-September 1955.



Table 9.--Summary of observations at bathythermograph lowerings, JRM Cr. 26. (For coded values see H. O. Pub. 606-C)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Beauf. force	Dry bulb °F.	Wet bulb °F.			Type	Cover			
1	1600	7/16	22°39'N	156°55'W	74.6	090	5	72.0	69.0	1017.0	01	8	2	8	5	-
2	2100	7/16	23°10'N	156°39'W	74.9	080	5	75.0	70.0	1019.0	02	8	2	8	4	35.21
3	0130	7/17	23°42'N	156°18'W	75.0	070	4	76.4	71.2	1019.0	02	8	4	8	4	-
4	0600	7/17	24°16'N	155°56'W	74.2	070	4	74.8	70.6	1019.0	02	8	3	7	4	35.78
5	1130	7/17	24°44'N	155°40'W	74.0	070	4	72.5	69.2	1019.0	02	8	2	7	4	-
6	1600	7/17	25°12'N	155°24'W	73.0	070	5	72.8	68.0	1020.0	02	8	2	7	4	35.34
7	2100	7/17	25°45'N	155°05'W	74.0	060	4	74.5	69.0	1022.0	03	1,8,4	4	7	4	-
8	0130	7/18	26°13'N	154°49'W	74.6	055	4	74.6	69.0	1021.0	01	4	2	8	4	35.51
9	0600	7/18	26°40'N	154°32'W	73.5	060	5	73.0	67.0	1021.0	02	4,8	3	7	4	-
10	1140	7/18	27°14'N	154°11'W	73.5	050	6	69.8	67.2	1021.0	60	X	X	X	4	36.08
11	1600	7/18	27°53'N	153°45'W	73.2	060	5	71.0	67.2	1022.0	50	8,1,4	6	7	4	-
12	2100	7/18	28°37'N	153°17'W	74.0	050	4	72.8	68.8	1023.0	01	8,4	4	8	3	35.78
13	0130	7/19	29°11'N	152°55'W	74.0	050	4	72.5	69.0	1022.0	03	8,4	5	7	3	-
14	0530	7/19	29°38'N	152°37'W	72.8	050	5	71.5	68.0	1023.0	01	8	2	7	3	35.65
15	1130	7/19	30°20'N	152°10'W	73.5	040	5	71.0	69.0	1023.0	50	X	X	X	4	-
16	1630	7/19	30°48'N	152°00'W	74.9	045	5	72.0	68.0	1023.0	50	8,4,1	6	6	4	-
17	2230	7/19	30°51'N	151°56'W	75.2	050	5	72.5	68.0	1024.0	01	8	2	8	4	35.61
18	0135	7/20	30°52'N	151°46'W	75.0	050	4	74.1	69.0	1023.0	03	5,8	3	8	3	-
19	0530	7/20	31°14'N	151°31'W	73.5	050	5	72.8	68.9	1023.0	01	8,1	4	7	4	35.74
20	1130	7/20	31°50'N	151°15'W	72.6	060	5	69.8	67.5	1023.0	02	X	X	X	4	-
21	1620	7/20	32°16'N	151°12'W	72.8	075	4	69.8	66.0	1024.0	21	8,4	6	6	4	-
22	2225	7/20	32°13'N	151°12'W	73.5	060	5	72.8	66.5	1025.0	01	8,4	3	7	4	35.30
23	0115	7/21	32°11'N	151°05'W	71.9	050	5	72.8	67.0	1024.0	01	3,1	2	8	4	-
24	0530	7/21	32°36'N	150°45'W	71.5	050	5	69.9	66.2	1025.0	03	8,3,1	5	7	3	35.43
25	1130	7/21	33°19'N	150°37'W	71.6	050	4	70.0	65.2	1026.0	00	X	X	X	3	-
26	1615	7/21	33°48'N	150°32'W	71.8	055	4	69.8	66.0	1027.0	03	8,4	7	7	3	-
27	2230	7/21	33°48'N	150°32'W	72.5	055	4	71.2	66.5	1027.0	03	4,0	8	7	3	35.37
28	0110	7/22	33°48'N	150°24'W	72.5	055	4	71.0	65.2	1026.0	02	8,0	9	7	3	-
29	0530	7/22	34°15'N	150°10'W	71.6	055	4	70.1	65.9	1026.0	02	8,9	4	7	3	34.92
30	1130	7/22	35°01'N	149°51'W	70.5	050	5	70.0	66.0	1026.0	00	X	X	X	3	-
31	1610	7/22	35°31'N	149°45'W	71.0	050	4	70.5	64.5	1027.0	01	8	1	7	3	-
32	2100	7/22	35°29'N	149°45'W	71.2	050	4	70.0	65.8	1028.0	01	8,1	4	8	3	34.72
33	2350	7/22	35°27'N	149°38'W	71.0	050	4	70.0	66.0	1028.0	01	8,1	3	8	3	-
34	0530	7/23	36°05'N	149°05'W	70.2	040	4	68.5	64.0	1028.0	02	8	4	8	2	-
35	1130	7/23	36°34'N	148°42'W	69.9	035	4	68.1	62.0	1029.0	01	X	X	X	2	34.45
36	1525	7/23	36°56'N	148°32'W	69.2	040	4	68.9	62.1	1030.0	01	8,6	6	8	2	-
37	2125	7/23	36°59'N	148°35'W	69.8	035	3	70.5	63.2	1031.0	01	1,2,4	3	8	2	34.69
38	2340	7/23	36°59'N	148°27'W	70.0	040	3	69.0	62.5	1031.0	01	8	2	8	2	-
39	0530	7/24	37°31'N	148°01'W	70.1	025	3	68.5	63.0	1032.0	02	6	2	8	2	-
40	1130	7/24	38°08'N	147°29'W	68.3	030	3	64.8	60.0	1032.0	02	X	X	X	2	34.36
41	1518	7/24	38°24'N	147°12'W	68.6	320	3	65.8	62.0	1032.0	03	6,8	6	6	2	-
42	2120	7/24	38°02'N	147°16'W	69.0	330	3	66.0	63.0	1032.0	02	6,8	6	6	2	34.32
43	2335	7/24	38°29'N	147°14'W	69.3	310	2	68.5	63.6	1032.0	02	8	6	7	1	-
44	0530	7/25	39°03'N	146°50'W	67.5	345	3	65.0	60.5	1030.0	03	7	10	6	2	-
45	1130	7/25	39°38'N	146°30'W	65.6	340	4	63.6	60.2	1028.0	00	X	X	X	2	33.91
46	1527	7/25	39°50'N	146°18'W	65.3	290	4	64.5	60.6	1027.0	02	6,7	7	7	3	-
47	2105	7/25	39°49'N	146°25'W	65.8	290	4	67.5	61.5	1027.0	02	6,4	6	7	4	34.04
48	2335	7/25	39°54'N	146°27'W	66.0	290	4	68.1	63.0	1026.0	01	1,8	1	8	4	-
49	0530	7/26	40°21'N	145°57'W	64.0	300	4	65.4	62.1	1026.0	03	6	7	7	4	-
50	1130	7/26	40°55'N	145°23'W	63.9	310	4	63.0	61.5	1026.0	02	X	X	X	4	33.85

Table 9.—Summary of observations at bathythermograph lowerings, JRM Cr. 26. (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Reau. force	Dry bulb °F.	Wet bulb °F.			Type	Cover			
51	1530	7/26	41°07'N	145°01'W	63.0	280	4	63.0	62.0	1026.0	16	X	9	3	4	-
52	2105	7/26	41°03'N	145°05'W	63.5	260	3	67.0	63.4	1028.0	01	3,4	5	8	3	33.62
53	2335	7/26	41°10'N	145°08'W	63.3	260	4	65.0	63.0	1027.0	03	3,4	6	7	3	-
54	0530	7/27	41°37'N	144°52'W	62.0	270	4	62.0	60.5	1028.0	03	3,4	6	7	3	-
55	1130	7/27	41°54'N	144°31'W	60.5	270	5	59.8	57.0	1030.0	00	X	X	X	5	33.22
56	1530	7/27	41°59'N	144°20'W	60.4	310	4	58.5	56.2	1031.0	16	4,5	6	5	3	-
57	2120	7/27	41°59'N	144°26'W	60.3	360	4	60.2	56.5	1033.0	03	4,5	7	6	3	33.31
58	0015	7/28	42°05'N	144°22'W	60.2	360	4	60.5	57.0	1034.0	02	8,4	5	7	3	-
59	0530	7/28	42°31'N	144°05'W	59.5	005	4	59.0	57.0	1035.0	02	9,4	9	7	3	-
60	1130	7/28	43°02'N	144°00'W	59.4	310	4	59.0	57.2	1035.0	02	X	X	X	3	33.18
61	1530	7/28	43°30'N	143°19'W	58.3	260	2	59.2	57.8	1035.0	16	6	9	6	1	-
62	2115	7/28	43°31'N	143°21'W	59.0	300	3	60.5	59.5	1035.0	42,50	0,4	8	3	1	33.10
63	0015	7/29	43°33'N	143°30'W	59.0	300	3	62.2	59.9	1034.0	02	4	8	5	1	-
64	0530	7/29	44°01'N	142°52'W	57.8	330	3	58.8	58.0	1034.0	47	X	9	2	1	-
65	1130	7/29	44°33'N	142°26'W	57.1	330	3	59.7	58.1	1032.0	01	X	X	X	2	32.97
66	1500	7/29	44°58'N	142°09'W	57.0	320	4	56.5	56.1	1032.0	45	X	9	0	3	-
67	2115	7/29	44°47'N	142°11'W	57.4	290	4	57.6	56.7	1032.0	02	X	9	1	3	33.03
68	0530	7/30	45°30'N	141°52'W	56.8	280	4	56.9	56.0	1027.0	10	X	9	3	5	-
69	1130	7/30	46°01'N	141°25'W	55.7	280	6	56.2	55.5	1021.0	10,50	X	9	X	5	32.72
70	1430	7/30	46°20'N	141°09'W	55.0	280	5	56.0	55.5	1019.0	50,47	X	9	1	6	-
71	2100	7/30	46°22'N	141°50'W	55.0	270	5	55.0	54.2	1018.0	60,47	X	9	2	6	32.81
72	0530	7/31	46°54'N	140°36'W	55.0	270	5	54.0	52.5	1015.0	00	7	9	2	5	-
73	1130	7/31	47°24'N	140°33'W	54.6	270	5	54.8	52.0	1014.0	02	X	X	X	X	32.83
74	1525	7/31	47°31'N	140°37'W	53.8	280	3	53.2	49.3	1015.0	03	4,6	6	7	3	-
75	2115	7/31	47°31'N	140°38'W	54.1	295	4	55.7	52.8	1017.0	01	8	2	8	3	32.88
76	2355	7/31	47°38'N	140°37'W	54.6	310	3	54.8	52.0	1018.0	01	8	6	8	3	-
77	0530	8/1	47°05'N	140°02'W	55.2	290	3	55.5	53.0	1019.0	01	8,4	6	6	2	-
78	1130	8/1	46°39'N	139°23'W	55.0	290	3	55.5	53.2	1021.0	02	X	X	7	1	32.76
79	1525	8/1	46°19'N	139°08'W	56.1	280	2	55.3	52.5	1022.0	03	4,6,8	8	7	2	-
80	2105	8/1	46°19'N	139°08'W	56.5	260	2	56.4	52.9	1025.0	02	8,4	8	7	2	32.94
81	0005	8/2	46°26'N	139°06'W	56.1	260	2	57.6	53.0	1026.0	02	8,4	7	7	2	-
82	0530	8/2	45°56'N	138°29'W	56.1	270	2	57.0	52.9	1027.0	02	6	7	6	2	-
83	1130	8/2	45°31'N	137°50'W	56.5	270	2	57.0	54.5	1029.0	02	X	X	7	2	32.84
84	1525	8/2	45°24'N	137°39'W	56.5	270	2	56.5	54.2	1030.0	50,03	8,6,4	8	7	2	-
85	2125	8/2	45°13'N	137°34'W	56.6	270	2	57.2	53.0	1032.0	02	6,8	8	7	2	32.87
86	0020	8/3	45°24'N	137°39'W	56.8	270	3	56.2	54.0	1031.0	16	6,8	8	7	2	-
87	0530	8/3	44°48'N	137°00'W	57.5	260	3	55.9	54.0	1031.0	02	8,6	7	7	2	-
88	1130	8/3	44°14'N	136°31'W	58.2	280	3	56.5	54.5	1030.0	50	X	X	X	2	32.91
89	1525	8/3	43°56'N	136°08'W	57.8	270	4	55.5	54.0	1030.0	50	6	7	5	3	-
90	2110	8/3	43°56'N	136°10'W	57.9	300	4	57.4	54.5	1030.0	02	6	7	6	3	32.96
91	2335	8/3	44°01'N	136°16'W	57.9	300	4	57.7	54.1	1029.0	02	6	7	7	3	-
92	0530	8/4	43°25'N	135°28'W	59.0	280	4	59.0	54.9	1028.0	02	6	7	7	3	-
93	1130	8/4	42°53'N	135°04'W	58.0	230	4	57.2	53.5	1026.0	01	8	6	7	3	33.00
94	1525	8/4	42°29'N	134°40'W	59.3	335	4	58.5	55.0	1026.0	01	8,1	3	8	3	-
95	2130	8/4	42°29'N	134°40'W	59.8	320	3	57.5	56.0	1026.0	01	8	2	8	3	33.13
96	2355	8/4	42°36'N	134°40'W	59.3	315	4	59.4	55.4	1026.0	03	8	7	8	3	-
97	0530	8/5	42°13'N	134°25'W	60.0	340	4	58.9	55.0	1026.0	02	8,6	7	7	3	-
98	1130	8/5	41°44'N	134°05'W	60.0	340	4	58.5	55.0	1025.0	02	8,6	7	7	3	33.27
99	1435	8/5	41°28'N	134°01'W	60.2	340	4	58.5	54.0	1025.0	02	6,8	7	7	3	-
100	2015	8/5	41°26'N	133°48'W	60.1	350	4	58.5	55.2	1025.0	02	6,8	7	7	3	33.22

Table 9.—Summary of observations at bathythermograph lowerings, JRM Cr. 26. (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Baro- meter mb.	Wea- ther	Clouds		Visi- bility	Sea	Surf. sal. ‰
						Dir. °T.	Beau. force	Dry bulb °F.	wet bulb °F.			Type	Cover			
101	2245	8/5	41°31'N	133°44'W	59.8	335	4	60.0	56.3	1025.0	02	6,8	7	7	3	-
102	0535	8/6	41°03'N	133°12'W	60.8	350	4	59.2	55.5	1025.0	02	X	X	X	3	-
103	1430	8/6	40°55'N	133°01'W	60.8	330	4	58.5	55.0	1024.0	21	8,6	7	6	3	-
104	2020	8/6	40°53'N	133°03'W	61.0	340	4	59.5	56.8	1025.0	01	8	6	7	3	33.26
105	2255	8/6	40°58'N	133°02'W	61.0	340	4	59.9	56.9	1025.0	02	8	7	7	3	-
106	0530	8/7	41°32'N	132°23'W	60.0	355	4	59.0	56.3	1025.0	02	X	X	X	3	-
107	1425	8/7	42°09'N	131°32'W	60.0	300	3	60.0	58.0	1024.0	02	8,6	6	7	2	-
108	2015	8/7	42°08'N	131°30'W	60.2	250	3	62.1	60.1	1025.0	02	8,6	7	7	2	33.00
109	2255	8/7	42°13'N	131°25'W	60.0	270	4	62.0	60.8	1025.0	02	8,6	7	7	2	-
110	0530	8/8	42°45'N	130°45'W	59.5	280	4	62.2	57.5	1025.0	02	X	X	X	4	-
111	1130	8/8	43°18'N	130°11'W	58.5	290	4	59.2	54.5	1025.0	02	X	X	7	4	32.94
112	1425	8/8	43°25'N	129°58'W	58.5	315	4	58.5	53.9	1026.0	02	6	7	7	3	-
113	2015	8/8	43°25'N	130°00'W	58.8	330	4	59.3	54.9	1027.0	02	6	7	7	3	32.86
114	2240	8/8	43°29'N	129°56'W	58.5	320	3	59.2	54.6	1026.0	02	6,8	6	7	3	-
115	0530	8/9	42°57'N	129°03'W	59.2	335	4	59.8	54.8	1024.0	02	X	6	7	3	-
116	1425	8/9	42°30'N	128°31'W	59.2	350	5	59.0	54.0	1022.0	01	8,6	5	7	4	-
117	2015	8/9	42°31'N	128°31'W	59.8	340	4	61.2	56.9	1022.0	02	8,6	5	7	4	32.75
118	2245	8/9	42°36'N	128°26'W	59.2	340	4	59.9	56.0	1022.0	02	8,6	8	7	4	-
119	0530	8/10	42°00'N	127°46'W	59.3	340	5	59.9	55.8	1022.0	02	X	X	X	5	-
120	1420	8/10	41°40'N	126°51'W	58.7	340	5	59.9	55.0	1022.0	02	6,8	7	7	4	-
121	2020	8/10	41°39'N	126°41'W	59.6	340	5	61.0	56.8	1023.0	02	6,8	7	7	4	32.18
122	2250	8/10	41°46'N	126°44'W	59.3	340	5	61.2	57.0	1023.0	02	6,8	7	7	4	-
123	0530	8/11	41°06'N	127°23'W	59.8	330	5	59.8	55.0	1024.0	02	X	X	7	4	-
124	1130	8/11	40°37'N	127°56'W	59.5	340	4	60.0	55.5	1024.0	02	6	7	7	3	32.74
125	1415	8/11	40°18'N	128°13'W	59.2	330	6	59.5	55.0	1024.0	02	6,4	7	7	4	-
126	2015	8/11	40°17'N	128°18'W	59.7	330	6	61.5	56.5	1025.0	01	8,4	4	7	4	32.52
127	2300	8/11	40°20'N	128°12'W	59.5	330	5	60.5	57.5	1024.0	01	8,4	2	7	4	-
128	0530	8/12	39°55'N	127°32'W	59.0	340	6	59.8	57.0	1023.0	02	X	1	8	5	-
129	1430	8/12	39°48'N	127°15'W	59.2	330	6	59.1	56.0	1020.0	03	6,4	8	6	6	-
130	2045	8/12	39°50'N	127°08'W	60.0	335	6	60.0	56.9	1020.0	02	6,4	8	6	6	32.83
131	0000	8/13	40°02'N	127°01'W	59.0	335	6	57.1	54.5	1019.0	01	8,4	2	8	6	-
132	1350	8/20	38°40'N	124°54'W	55.1	320	5	56.9	54.8	1015.0	02	3,8	7	7	5	-
133	2000	8/20	38°49'N	124°57'W	53.8	320	5	59.2	56.2	1016.0	01	X	0	8	6	33.39
134	0000	8/21	38°22'N	124°37'W	51.0	330	5	57.3	54.5	1015.0	02	X	0	8	5	-
135	0520	8/21	37°46'N	124°06'W	55.6	330	4	57.2	54.8	1015.0	02	0	0	8	3	-
136	1130	8/21	37°06'N	123°39'W	55.1	330	4	56.5	53.5	1015.0	02	0	0	8	3	33.64
137	1420	8/21	36°53'N	123°35'W	55.5	330	4	57.2	54.5	1015.0	02	8	1	8	3	-
138	2000	8/21	36°52'N	123°32'W	55.9	330	4	58.2	56.1	1015.0	02	1,4	2	8	3	33.68
139	2300	8/21	36°58'N	123°36'W	56.2	320	4	58.9	56.1	1014.0	02	0	0	8	3	-
140	0525	8/22	36°24'N	123°08'W	56.5	330	4	57.5	56.0	1014.0	02	X	X	8	4	-
141	1420	8/22	35°59'N	122°55'W	56.5	320	6	57.5	54.8	1013.0	03	1,9	4	8	4	-
142	2030	8/22	36°01'N	122°59'W	56.7	310	4	58.5	55.2	1015.0	02	3	3	8	5	33.60
143	2310	8/22	36°08'N	123°00'W	56.9	310	6	58.9	55.5	1012.0	02	3,4	4	8	5	-
144	0530	8/23	35°32'N	122°34'W	56.5	310	5	59.1	56.0	1012.0	01	0	0	8	4	-
145	1425	8/23	35°02'N	122°11'W	57.0	310	5	57.5	55.2	1013.0	03	3,8	4	8	4	-
146	2000	8/23	35°02'N	122°15'W	57.5	320	4	57.9	55.0	1014.0	03	2	7	7	4	33.86
147	2300	8/23	35°07'N	122°16'W	57.2	320	5	58.4	55.2	1013.0	02	6	8	7	4	-
148	0530	8/24	35°01'N	123°05'W	55.9	320	6	57.9	55.0	1014.0	02	0	0	8	4	33.78
149	1130	8/24	34°57'N	123°38'W	57.5	320	5	58.0	56.3	1015.0	03	6	3	7	4	-
150	1800	8/24	35°04'N	123°51'W	57.5	330	5	58.9	56.1	1017.0	01	8,4	3	8	5	33.40

Table 9.—Summary of observations at bathythermograph lowerings, JRM Cr. 26. (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Beau. force	Dry bulb °F.	Wet bulb °F.			Type	Cover			
151	0000	8/25	35°03'N	124°16'W	58.1	330	5	60.8	57.0	1017.0	02	0	0	8	5	-
152	0530	8/25	35°01'N	124°59'W	57.5	330	5	58.0	56.1	1018.0	02	6,8	2	8	4	33.39
153	1425	8/25	34°49'N	125°21'W	57.5	325	4	58.6	55.7	1019.0	02	4,8	2	8	4	-
154	2032	8/25	34°52'N	125°14'W	58.3	320	4	59.0	56.5	1019.0	02	6	1	8	3	33.15
155	2250	8/25	34°55'N	125°18'W	57.7	320	4	59.7	56.8	1019.0	02	0	0	8	3	-
156	0530	8/26	34°56'N	126°10'W	60.5	320	4	59.9	56.0	1020.0	02	0	0	8	3	33.62
157	1425	8/26	34°54'N	126°33'W	60.1	320	4	60.5	56.0	1021.0	03	6	5	8	3	-
158	2010	8/26	34°58'N	126°48'W	60.3	320	4	61.1	57.1	1022.0	01	8,4	2	8	3	33.46
159	2300	8/26	35°03'N	126°51'W	60.8	320	4	61.5	56.2	1021.0	02	8	1	8	3	-
160	0530	8/27	35°06'N	127°47'W	61.7	310	3	62.2	58.3	1021.0	02	0	0	8	3	33.46
161	1445	8/27	34°55'N	128°33'W	62.0	320	2	63.5	60.9	1021.0	50	6	7	8	1	-
162	2115	8/27	34°55'N	128°33'W	63.2	320	3	63.5	62.3	1021.0	01	0,6	5	8	2	33.30
163	2345	8/27	35°01'N	128°30'W	64.0	320	3	65.1	63.0	1019.0	02	6,0	6	8	2	-
164	0530	8/28	35°00'N	129°12'W	64.2	320	3	65.2	60.5	1019.0	02	X	X	8	2	33.49
165	1515	8/28	34°48'N	130°16'W	65.2	330	3	64.0	61.1	1019.0	20	8	6	8	2	-
166	2100	8/28	34°47'N	130°17'W	66.1	020	3	65.3	61.5	1020.0	03	3,6	7	8	2	33.50
167	2345	8/28	34°54'N	130°16'W	66.2	350	2	64.5	61.6	1019.0	16	8,6	8	8	2	-
168	0530	8/29	35°32'N	130°23'W	64.0	330	2	63.8	59.5	1019.0	02	8	7	X	2	33.03
169	1130	8/29	36°06'N	130°45'W	64.3	330	4	63.2	60.5	1019.0	21	X	X	X	2	-
170	1520	8/29	36°19'N	130°59'W	64.9	350	2	61.8	59.5	1019.0	16	8,1	6	8	2	-
171	2110	8/29	36°20'N	131°04'W	65.3	350	2	65.7	60.4	1020.0	01	8	2	8	2	33.43
172	0010	8/30	36°26'N	131°02'W	65.4	300	2	66.9	60.9	1019.0	02	5,8	1	8	2	-
173	0530	8/30	36°55'N	131°15'W	65.1	350	2	66.9	59.5	1020.0	02	8	2	8	1	33.46
174	1520	8/30	37°39'N	131°36'W	65.1	180	2	64.3	62.5	1021.0	03	8,4	7	8	2	-
175	2110	8/30	37°39'N	131°33'W	66.1	200	3	68.2	65.2	1021.0	02	8,4	7	8	2	33.36
176	2355	8/30	37°32'N	131°38'W	66.6	230	3	68.0	64.8	1021.0	01	8	2	8	2	-
177	0535	8/31	38°03'N	131°52'W	66.2	240	2	67.5	65.1	1021.0	01	0	0	8	2	33.26
178	1520	8/31	38°43'N	132°16'W	65.8	230	2	68.0	66.0	1021.0	01	8,4	5	8	2	-
179	2115	8/31	38°43'N	132°16'W	67.0	250	2	69.4	66.3	1023.0	01	8	2	8	2	33.36
180	2355	8/31	38°39'N	132°18'W	67.9	230	2	70.2	66.5	1022.0	02	2	4	8	2	-
181	0630	9/1	38°05'N	133°02'W	66.7	230	3	67.8	66.5	1023.0	02	8,2	5	8	2	33.37
182	1130	9/1	37°38'N	133°50'W	67.0	230	2	68.5	67.0	1023.0	03	8,6	7	8	2	-
183	1525	9/1	37°22'N	134°09'W	67.5	220	1	68.3	66.6	1024.0	15	8,6	7	7	1	-
184	2055	9/1	37°22'N	134°09'W	68.0	230	1	71.6	69.1	1024.0	01	1,8	4	8	0	33.30
185	2350	9/1	37°20'N	134°15'W	68.8	230	2	71.8	68.3	1024.0	03	8,6	7	8	1	-
186	0530	9/2	36°38'N	134°51'W	70.2	230	2	70.2	67.0	1025.0	03	6	8	7	1	33.98
187	1130	9/2	36°05'N	135°28'W	70.2	X	1	71.0	68.0	1023.0	02	X	7	8	1	-
188	1515	9/2	35°43'N	135°57'W	70.0	350	1	71.2	68.3	1023.0	02	8,6	7	8	1	-
189	2110	9/2	35°44'N	135°58'W	70.9	290	2	71.1	69.8	1023.0	02	8,6	7	8	1	34.09
190	2350	9/2	35°51'N	135°57'W	71.1	330	3	72.2	69.7	1022.0	50	8,6	7	7	2	-
191	0530	9/3	35°10'N	136°24'W	70.6	330	2	72.3	68.8	1022.0	02	8,6	6	8	2	34.23
192	1130	9/3	34°29'N	137°07'W	70.3	020	3	71.9	68.8	1021.0	02	8	6	8	2	-
193	1520	9/3	34°12'N	137°42'W	71.0	030	5	70.6	67.8	1021.0	15	8,6	7	7	3	-
194	2115	9/3	34°13'N	137°44'W	71.5	020	4	70.5	68.0	1020.0	21	8,6	7	7	3	34.28
195	2350	9/3	34°16'N	137°37'W	70.8	020	4	70.3	67.0	1019.0	21	8,6	7	7	3	-
196	0530	9/4	33°40'N	138°04'W	71.0	030	4	69.2	66.0	1018.0	02	6	7	7	4	34.20
197	1130	9/4	32°54'N	138°43'W	70.5	025	4	70.2	65.2	1017.0	02	X	X	7	4	-
198	1515	9/4	32°26'N	139°09'W	70.0	000	4	69.5	64.2	1017.0	01	8,6	3	8	4	-
199	2100	9/4	32°26'N	139°07'W	70.8	010	3	71.2	63.9	1017.0	01	8	2	8	3	34.72
200	2355	9/4	32°31'N	139°02'W	70.7	330	3	69.9	63.0	1016.0	02	8	2	8	3	-

Table 9.—Summary of observations at bathythermograph lowerings, JRM Cr. 26. (For coded values see H. O. Pub. 606-C) (cont'd)

Ser. No.	Time GCT	Date 1955	Lat.	Long.	Bkt. temp. °F.	Wind		Air temp.		Barometer mb.	Weather	Clouds		Visibility	Sea	Surf. sal. ‰
						Dir. °T.	Beau. force	Dry bulb °F.	Wet bulb °F.			Type	Cover			
201	0530	9/5	31°54'N	139°33'W	70.5	330	3	70.0	63.8	1016.0	02	8	2	8	3	34.98
202	1130	9/5	31°10'N	140°19'W	70.9	340	3	70.2	65.0	1016.0	02	8	2	8	3	-
203	1525	9/5	30°46'N	140°46'W	71.1	015	2	70.2	66.6	1016.0	02	8	2	8	2	-
204	2115	9/5	30°48'N	140°46'W	73.2	Calm	0	73.8	68.8	1017.0	02	8	2	8	1	34.99
205	0000	9/6	30°53'N	140°40'W	75.0	Calm	0	74.1	68.0	1017.0	02	8	2	8	1	-
206	0530	9/6	30°26'N	141°31'W	72.9	Calm	0	73.1	69.0	1017.0	02	8	2	8	1	35.03
207	1130	9/6	29°57'N	142°27'W	73.2	Calm	0	72.1	69.0	1017.0	02	8,6	3	8	1	-
208	1525	9/6	29°38'N	143°02'W	72.8	Calm	0	72.0	69.0	1018.0	01	8,6	5	8	0	-
209	2045	9/6	29°41'N	143°01'W	74.5	130	3	74.9	70.8	1019.0	02	8	2	8	2	35.27
210	2300	9/6	29°45'N	142°55'W	74.2	130	3	74.5	71.5	1018.0	02	8	2	8	2	-
211	0600	9/7	29°12'N	143°52'W	74.2	130	2	73.1	69.2	1019.0	02	8	2	8	0	35.83
212	1130	9/7	28°46'N	144°42'W	74.2	100	3	72.0	68.0	1019.0	03	8	7	8	1	-
213	1600	9/7	28°25'N	145°23'W	72.8	100	3	72.6	68.5	1019.0	01	8,6	3	8	2	35.66
214	2100	9/7	28°05'N	146°12'W	73.5	100	3	75.9	69.3	1019.0	01	8,6	2	8	2	-
215	0130	9/8	27°44'N	146°52'W	74.8	085	3	75.2	68.0	1017.0	02	8	3	8	2	35.61
216	0600	9/8	27°21'N	147°31'W	73.9	080	4	74.0	67.1	1018.0	02	8	2	8	2	-
217	1130	9/8	26°53'N	148°16'W	73.8	080	4	72.5	68.8	1017.0	02	8	3	8	2	35.74
218	1600	9/8	26°30'N	148°54'W	74.3	095	4	73.0	67.9	1017.0	02	8	2	8	3	-
219	2100	9/8	26°04'N	149°36'W	75.8	100	3	75.2	69.6	1017.0	02	8	3	8	2	35.40
220	0130	9/9	25°40'N	150°13'W	76.9	085	1	75.1	68.0	1016.0	02	8	2	8	1	-
221	0600	9/9	25°16'N	150°52'W	74.9	060	1	73.8	67.2	1017.0	02	8	2	8	1	35.42
222	1130	9/9	24°50'N	151°39'W	74.4	Calm	0	73.0	68.0	1017.0	02	8	1	8	0	-
223	1600	9/9	24°29'N	152°19'W	74.0	130	1	72.9	67.1	1017.0	02	8	1	8	0	35.37
224	2100	9/9	24°07'N	153°01'W	77.0	Calm	0	76.1	67.9	1019.0	02	8	3	8	0	-
225	0130	9/10	23°43'N	153°40'W	78.0	Calm	0	75.7	68.1	1016.0	02	8	1	8	0	35.21
226	0600	9/10	23°19'N	154°21'W	76.9	Calm	0	75.4	68.1	1018.0	02	8	2	8	1	-
227	1130	9/10	22°52'N	155°03'W	75.9	Calm	0	74.5	68.5	1018.0	02	8	1	8	0	35.12
228	1600	9/10	22°25'N	155°45'W	75.9	080	2	74.6	67.5	1017.0	02	8	1	9	1	-
229	2100	9/10	21°57'N	156°30'W	76.1	075	2	78.0	69.8	1017.0	02	8	2	9	2	-
230	0130	9/11	21°33'N	157°08'W	77.3	060	3	77.8	69.8	1017.0	02	8	2	9	2	-



Table 10.—Log of ship's weather observations, JRM Cr. 26, July 17 - September 10, 1955.  
Results in International Ship Weather Code, January 1, 1955

Date 1955	Latitude N.	Longitude W.	Time GCT	Visibility	Wind		Weather		Pressure		Temperature			Clouds				Waves					
					Direction	Speed (kt.)	Present	Past	Bar. Corr. in mb.	Characteristic	Amt. change	Dry bulb (°F)	Wet bulb (°F)	Sea water (°F)	Total amt.	Ant. low	Types low	Ht. low	Type middle	Type high	Direction	Period	Height
7/17	24.3	156.0	0600	98	07 15	02	0		1019.3	1	07	74.8	70.6	74.2	3	3	1	4	0	0	07	2	5
7/17	24.8	155.6	1200	98	07 16	02	0		1019.3	4	00	72.5	69.2	74.0	2	2	1	4	0	0	07	4	5
7/18	26.7	154.5	0600	98	06 18	02	0		1021.0	4	03	73.4	67.5	73.5	2	2	1	4	0	0	07	3	5
7/18	26.9	154.3	1200	XX	05 25	60	6		1021.0	4	00	69.8	67.2	73.5	X	X	X	X	X	X	07	3	5
7/19	30.0	152.5	0600	99	05 18	01	2		1022.7	4	00	71.5	68.0	72.8	3	3	2	4	0	0	07	3	5
7/19	31.0	152.1	1200	XX	04 20	50	2		1023.0	2	03	71.0	69.0	73.5	X	X	X	X	X	X	07	3	6
7/20	31.2	151.6	0600	98	05 20	03	1		1023.0	7	03	72.8	68.9	73.5	6	4	2	4	1	2	07	3	5
7/20	32.1	151.2	1200	XX	06 21	02	1		1023.4	2	03	69.8	67.5	72.6	X	X	X	X	X	X	06	3	5
7/21	32.7	151.0	0600	98	05 19	03	1		1024.7	2	03	69.9	66.2	71.5	6	2	1	4	0	0	05	3	4
7/21	33.3	150.7	1200	98	05 16	00	2		1026.1	3	14	70.0	65.2	71.6	X	X	X	X	X	X	05	3	4
7/22	34.2	150.2	0600	98	05 15	03	2		1026.1	4	00	70.1	65.9	71.8	4	3	1	3	9	0	05	3	4
7/22	34.9	149.9	1200	XX	05 21	02	2		1026.8	3	07	70.0	66.0	70.5	X	X	X	X	X	X	05	3	3
7/23	36.1	149.0	0600	98	04 11	02	1		1028.1	4	00	68.5	64.0	70.2	5	5	1	4	0	0	04	2	2
7/23	36.6	148.6	1200	XX	04 12	01	0		1029.1	2	10	68.1	62.0	69.9	X	X	X	X	X	X	04	2	2
7/24	37.5	148.1	0600	98	03 10	02	0		1031.5	2	03	68.5	63.0	70.1	3	3	5	3	0	0	03	3	2
7/24	37.9	147.8	1200	XX	03 10	02	1		1031.5	4	00	64.8	60.0	68.3	X	X	X	X	X	X	03	3	2
7/25	39.0	147.0	0600	97	35 09	03	2		1029.5	6	20	65.0	60.5	67.5	8	6	5	5	7	X	35	2	2
7/25	39.6	146.6	1200	XX	34 15	00	2		1028.4	7	10	63.6	60.2	65.6	X	X	X	X	X	X	34	2	3
7/26	40.3	146.0	0600	96	30 14	03	2		1026.1	7	07	65.4	62.1	64.0	8	3	9	3	X	X	30	3	4
7/26	40.8	145.5	1200	XX	31 14	01	2		1025.7	7	03	63.0	61.5	63.9	X	X	X	X	X	X	31	3	4
7/27	41.7	144.9	0600	97	27 13	03	2		1028.1	2	07	62.0	60.5	62.0	6	5	9	3	7	0	27	3	3
7/27	42.0	144.7	1200	XX	27 20	00	2		1029.5	2	14	59.8	57.0	60.5	X	X	X	X	X	X	27	3	3
7/28	42.5	144.1	0600	98	05 12	02	2		1034.9	2	10	59.0	57.0	59.5	8	8	3	3	X	X	01	3	3
7/28	43.1	144.0	1200	XX	31 10	02	2		1034.9	4	00	59.0	57.2	59.4	X	X	X	X	X	X	31	3	3
7/29	43.9	143.2	0600	92	33 08	47	4		1034.2	4	00	58.8	58.0	57.8	9	9	X	0	X	X	30	3	3
7/29	45.3	142.6	1200	XX	33 08	01	2		1032.2	7	20	59.7	58.1	56.1	X	X	X	X	X	X	30	3	3
7/30	45.6	141.6	0600	94	28 12	10	4		1027.4	7	20	56.9	56.0	56.5	9	9	X	0	X	X	28	5	5
7/30	45.8	141.6	1200	XX	27 27	15	4		1021.3	7	47	56.2	55.5	55.0	9	X	X	X	X	X	27	5	5
7/31	46.9	141.6	0600	93	27 18	00	4		1014.6	7	20	54.0	52.5	55.0	8	0	0	9	7	X	27	5	5
7/31	47.4	140.6	1200	XX	27 20	01	2		1014.2	4	00	54.8	52.0	54.6	X	X	X	X	X	X	27	5	5
8/1	46.1	140.0	0600	98	29 10	01	1		1019.0	2	05	55.5	53.0	55.2	7	7	1	5	0	0	29	6	3
8/1	46.6	139.4	1200	98	29 08	02	1		1021.3	2	17	55.5	53.2	55.0	X	X	X	X	X	X	29	6	2
8/2	46.0	138.4	0600	97	27 04	02	1		1027.4	2	07	57.0	52.9	56.1	7	7	5	5	0	0	27	6	2
8/2	37.8	145.4	1200	97	27 04	02	2		1028.8	2	07	57.0	54.5	56.5	X	X	X	X	X	X	27	6	2
8/3	44.8	137.0	0600	97	26 08	02	2		1031.2	4	00	55.9	54.0	57.5	8	8	5	5	X	X	27	5	2
8/3	44.3	136.5	1200	XX	26 09	50	2		1030.5	8	07	56.5	54.5	58.2	X	X	X	X	X	X	27	5	2
8/4	43.4	135.5	0600	XX	28 13	02	2		1028.1	7	09	59.0	54.9	59.0	8	8	5	4	X	X	28	5	3
8/4	42.7	134.7	1200	97	28 14	01	2		1026.1	7	10	57.2	53.5	58.0	7	7	8	4	0	0	28	5	3
8/5	42.2	134.3	0600	97	34 16	03	2		1026.1	4	00	58.9	55.0	60.0	8	8	5	4	X	X	34	5	3
8/5	42.0	134.0	1200	97	34 14	02	2		1024.7	7	10	58.5	55.0	60.0	8	8	4	4	X	X	34	5	3
8/6	41.0	133.0	0600	XX	35 16	02	2		1024.7	4	00	59.2	55.5	60.8	X	X	X	X	X	X	02	3	3
8/6	40.9	133.0	1200	XX	35 10	01	2		1023.4	7	07	57.4	52.3	61.0	X	X	X	X	X	X	02	3	3
8/7	41.5	132.4	0600	97	35 15	02	2		1024.7	4	00	59.0	56.3	60.0	8	8	5	4	X	X	02	3	3
8/8	42.5	130.8	0600	97	28 12	02	2		1024.7	4	00	62.2	57.5	59.5	8	8	5	4	X	X	28	4	5
8/8	43.4	130.2	1200	97	29 12	02	1		1025.4	1	07	59.2	54.5	58.5	X	X	X	X	X	X	28	4	4
8/9	43.0	129.1	0600	97	34 13	02	2		1024.0	7	07	59.8	54.8	59.2	7	X	X	X	X	X	34	4	3
8/9	42.7	128.6	1200	97	34 16	02	2		1021.3	7	14	59.9	54.1	58.5	8	8	4	5	X	X	34	2	4

Table 10.--Log of ship's weather observations, JRM Cr. 26, July 17 - September 10, 1955.  
Results in International Ship Weather Code, January 1, 1955 (cont'd)

Date 1955	Latitude N.	Longitude W.	Time COT	Visibility	Wind		Weather		Pressure		Temperature			Clouds					Waves				
					Direction	Speed (kt.)	Present	Past	Bar. Corr. in. mb.	Characteristic	Ant. change	Dry bulb (°F)	Wet bulb (°F)	Sea water (°F)	Total amt.	Ant. low	Types low	Ht. low	Type middle	Type high	Direction	Period	Height
8/10	42.0	127.8	0600	97	34	20	02	2	1022.0	2	03	59.9	55.8	59.3	8	8	4	4	X	X	34	4	6
8/10	41.7	127.0	1200	97	34	16	02	2	1020.7	7	09	60.0	56.5	59.0	6	6	X	X	X	X	34	4	6
8/11	41.1	127.9	0600	97	34	19	02	2	1024.0	2	07	59.8	55.0	59.8	X	X	X	X	X	X	34	4	5
8/11	40.6	128.0	1200	97	32	15	02	2	1024.0	0	00	60.0	55.5	59.5	8	8	5	5	X	X	32	3	5
8/12	39.9	127.6	0600	98	34	23	02	0	1022.7	7	07	59.8	57.0	58.5	1	X	X	X	X	X	34	3	6
8/12	39.9	127.2	1200	97	33	28	02	2	1020.0	7	20	60.1	57.2	59.0	8	X	X	X	X	X	33	3	7
8/13	39.3	126.4	0600	97	34	36	02	0	1016.6	7	14	59.2	55.0	58.5	0	0	0	9	0	0	34	3	4
8/21	38.3	124.6	0000	98	33	17	02	0	1015.2	4	00	57.3	54.5	51.0	0	0	0	9	0	0	33	3	6
8/21	37.7	123.1	0600	98	33	15	02	0	1014.6	7	03	57.2	54.8	55.6	0	0	0	9	0	0	33	3	3
8/21	37.2	123.6	1200	98	33	17	02	0	1014.6	4	00	56.5	53.5	55.1	0	0	0	9	0	0	33	3	3
8/22	36.7	123.5	0000	98	32	14	02	0	1013.9	7	12	58.9	56.1	56.2	0	0	0	9	0	0	32	3	3
8/22	36.4	123.1	0600	98	33	16	02	0	1013.9	4	00	57.5	56.0	56.5	X	X	X	X	X	X	33	3	4
8/22	36.6	122.9	1200	98	30	12	02	0	1013.2	7	03	58.6	54.8	56.5	0	0	0	9	0	0	30	3	5
8/23	36.1	123.0	0000	98	31	22	02	1	1012.5	7	20	58.9	55.5	56.9	4	0	0	9	4	9	31	3	6
8/23	35.5	122.6	0600	98	31	20	01	0	1012.5	0	00	59.1	56.0	56.5	0	0	0	9	0	0	31	4	6
8/23	35.1	122.3	1200	98	31	16	02	0	1011.5	7	09	57.5	55.0	57.0	0	0	0	9	0	0	31	4	5
8/24	35.1	122.3	0000	98	32	18	03	2	1013.2	6	07	58.4	55.2	57.2	8	0	0	9	0	7	32	4	5
8/24	35.1	123.0	0600	98	32	24	02	1	1013.9	4	00	57.9	55.0	55.9	0	0	0	9	0	0	32	4	6
8/24	35.0	123.7	1200	98	32	20	03	0	1015.2	2	07	58.0	56.3	57.5	3	3	5	4	0	0	32	3	7
8/24	35.1	123.8	1800	98	33	19	01	1	1016.9	1	14	58.9	56.1	57.5	3	1	1	0	8	0	32	4	6
8/25	35.1	124.3	0000	98	33	20	02	0	1016.9	4	00	60.8	57.0	58.1	9	0	0	0	0	0	32	4	6
8/25	35.0	125.0	0600	98	33	18	02	0	1018.0	4	05	58.0	56.1	57.5	3	3	5	4	0	0	32	4	5
8/25	35.0	125.3	1200	98	33	19	02	0	1018.0	4	00	58.1	55.5	57.0	0	0	0	9	0	0	32	4	4
8/26	35.0	126.2	0600	98	33	15	02	0	1020.0	2	07	59.9	56.0	60.5	0	0	0	9	0	0	32	4	3
8/26	35.0	126.8	1200	98	30	15	02	0	1020.0	0	00	61.5	56.5	60.0	2	2	5	4	0	0	30	4	3
8/27	35.1	126.9	0000	98	32	12	02	0	1020.7	8	10	61.5	56.2	60.8	1	1	1	0	0	0	32	4	3
8/27	35.1	127.7	0600	98	31	09	32	0	1021.3	2	03	62.2	58.3	61.7	0	0	0	9	0	0	31	4	3
8/28	35.0	128.5	0000	98	32	08	02	2	1019.3	7	14	65.1	63.0	64.0	7	4	1	4	3	5	32	4	2
8/28	35.0	129.2	0600	98	32	09	02	2	1019.3	3	07	65.2	60.5	64.2	X	X	X	X	X	X	32	4	2
8/28	35.0	129.7	1200	98	32	07	02	2	1018.6	7	03	64.6	61.8	65.0	X	X	X	X	X	X	32	4	3
8/29	34.9	130.3	0000	98	35	07	16	2	1019.3	8	07	64.5	61.6	66.2	7	7	4	X	X	X	35	4	2
8/29	35.5	130.4	0600	98	33	07	02	2	1019.3	4	00	63.8	59.5	64.0	7	7	8	4	0	0	34	4	2
8/29	36.1	130.6	1200	98	33	13	21	6	1018.6	8	05	63.2	60.5	64.3	X	X	X	X	X	X	34	4	2
8/30	36.9	131.3	0600	98	35	04	02	0	1020.3	2	07	64.9	59.5	65.1	1	1	1	0	0	0	34	4	1
8/30	37.5	131.5	1200	98	35	04	02	2	1020.0	0	00	65.8	61.5	65.3	X	X	X	X	X	X	34	2	2
8/31	38.1	131.9	0600	98	24	05	02	0	1021.3	2	03	67.5	65.1	66.2	0	0	0	9	0	0	24	3	2
8/31	38.8	132.5	1200	98	26	04	02	0	1021.3	4	00	66.6	65.0	65.2	0	0	0	9	0	0	25	3	2
9/1	38.1	133.0	0600	98	23	07	02	1	1023.4	2	10	67.8	66.5	66.7	4	1	6	4	0	4	23	3	2
9/1	37.7	133.6	1200	98	23	05	02	2	1023.4	0	00	68.5	67.0	67.0	8	8	6	4	X	X	23	2	2
9/2	36.6	134.8	0600	97	23	04	03	1	1021.7	2	07	70.2	67.0	70.2	8	5	6	4	X	X	23	2	2
9/2	36.0	135.6	1200	98	36	01	03	2	1022.7	7	10	71.0	68.0	70.2	7	X	X	X	X	X	23	2	2
9/3	35.1	136.4	0600	98	33	05	03	2	1022.0	3	07	72.3	68.6	70.6	7	7	4	4	X	X	23	5	3
9/3	34.5	137.0	1200	98	02	08	02	2	1021.3	7	03	71.9	68.8	70.3	6	6	8	4	0	0	23	5	3
9/4	33.7	138.0	0600	98	03	14	02	2	1018.3	0	00	69.2	66.0	71.0	8	8	5	4	X	X	03	5	5
9/4	33.0	138.7	1200	98	03	13	02	2	1016.6	7	15	70.2	65.2	70.5	X	X	X	X	X	X	03	5	4
9/5	31.9	139.5	0600	93	33	08	02	0	1016.3	3	10	70.0	63.8	70.5	3	3	1	0	0	0	02	5	4
9/5	31.1	140.2	1200	93	34	10	02	0	1016.3	0	00	70.2	65.0	70.9	2	2	1	4	0	0	02	5	4

Table 10.--Log of ship's weather observations, JRM Cr. 26, July 17 - September 10, 1955.  
Results in International Ship Weather Code, January 1, 1955 (cont'd)

Date 1955	Latitude N.	Longitude W.	Time GMT	Visibility	Wind		Weather	Pressure			Temperature			Clouds					Waves				
					Direction	Speed (kt.)		Present	Past	Bar. Corr. in mb.	Characteristic	Amt. change	Dry bulb (°F)	Wet bulb (°F)	Sea water (°F)	Total amt.	amt. low	Types low	Ht. low	Type middle	Type high	Direction	Period
9/6	30.4	141.6	0600	98	00	00	02	0	1017.3	2	03	73.1	69.0	72.9	2	2	1	4	0	0	02	4	2
9/6	30.0	142.6	1200	98	00	00	02	0	1017.3	4	00	72.1	69.0	73.2	3	3	4	4	0	0	02	4	1
9/7	29.2	144.0	0600	98	13	05	02	0	1019.3	2	12	73.1	69.2	74.2	2	2	1	4	0	0	02	4	1
9/7	28.6	144.9	1200	98	10	07	03	0	1018.6	2	03	72.0	68.0	74.2	7	7	4	5	0	0	02	4	2
9/6	27.4	147.5	0600	98	08	11	02	0	1018.0	2	07	74.0	67.1	73.9	2	2	8	X	0	0	05	3	2
9/6	26.9	148.1	1200	98	08	12	02	0	1017.3	8	05	72.5	68.8	73.8	3	3	8	4	0	0	06	3	2
9/9	25.3	150.9	0600	98	06	03	02	0	1016.6	4	00	73.8	67.2	74.9	1	1	6	4	0	0	06	3	2
9/9	24.8	151.6	1200	98	00	00	02	0	1016.6	0	00	73.0	68.0	74.4	1	1	8	4	0	0	06	3	2
9/10	23.8	153.5	0000	98	10	02	02	0	1016.6	4	00	78.3	69.1	78.5	1	1	1	4	0	0	10	3	2
9/10	23.3	154.3	0600	98	00	00	02	0	1018.0	2	09	75.4	68.1	76.9	2	2	2	4	0	0	36	5	2
9/10	22.8	155.1	1200	98	00	00	02	0	1017.6	4	00	74.5	68.5	75.9	1	1	2	4	0	0	10	4	2





Supplement.--Log of ship's weather observations, HMS Cr. 30, July 16 - September 1, 1955.  
Results in International Ship Weather Code, January 1, 1955

Date 1955	Latitude N.	Longitude W.	Time GCT	Visibility	Wind		Weather		Pressure		Temperature			Clouds					Waves			
					Direction	Speed (kt.)	Present	Past	Bar. corr. (mb.)	Characteristic	Amt. change	Dry bulb (°F.)	Wet bulb (°F.)	Sea water (°F.)	Total amt.	Amt. low	Type low	Ht. low	Type middle	Type high	Direction	Period
7/17 23.1°	160.3°	0000	99	07	18	02	0	1019.9	7	07	78.8	72.8	75.4	3	3	3	5	0	0	08	X	2
7/17 23.5°	161.2°	0600	99	09	19	14	1	1019.0	5	20	74.1	71.5	75.3	4	3	8	5	7	0	09	X	2
7/17 23.7°	161.6°	1200	99	09	19	02	1	1019.3	5	02	75.2	70.0	75.0	X	X	X	X	X	0	09	X	3
7/17 24.2°	162.8°	1800	99	08	17	14	1	1020.4	2	17	75.0	72.1	76.1	6	6	2	0	0	0	09	X	3
7/18 24.5°	163.3°	0000	99	08	20	02	0	1020.6	6	02	76.1	71.0	77.9	2	2	1	5	0	1	09	4	3
7/18 24.5°	163.5°	0600	99	09	20	02	0	1020.5	3	10	75.6	71.3	76.9	3	2	2	5	1	0	09	X	3
7/18 25.3°	164.8°	1200	99	08	13	02	0	1020.6	8	10	75.3	71.2	76.6	X	X	X	X	X	0	09	X	3
7/18 25.4°	165.4°	1800	99	09	14	02	6	1021.0	3	05	77.8	75.1	77.7	4	4	1	5	0	0	09	2	1
7/19 25.9°	166.2°	0000	99	09	14	02	0	1021.0	8	07	84.0	75.7	77.8	2	2	1	5	0	0	09	2	1
7/19 26.0°	166.5°	0600	99	12	14	02	0	1020.4	2	05	77.2	71.5	77.1	3	3	8	5	0	0	10	2	1
Stopped at Midway																						
7/24 28.3°	168.5°	1800	99	10	14	02	0	1021.0	2	05	78.0	72.3	78.1	1	1	8	5	0	0	10	2	1
7/20 26.4°	169.7°	0000	99	11	14	02	0	1021.6	1	00	84.1	73.5	78.7	1	1	8	5	0	0	11	2	1
7/20 27.1°	170.1°	0600	99	10	14	02	0	1020.8	3	07	77.6	71.0	77.5	2	2	8	5	0	0	10	2	1
7/20 27.2°	171.3°	1200	99	10	10	02	0	1021.2	8	07	76.7	70.8	78.7	2	2	2	5	0	0	10	X	2
7/20 27.2°	171.6°	1800	99	09	15	02	1	1021.0	3	07	79.0	73.2	78.0	5	4	2	5	0	6	10	X	2
7/21 27.5°	171.5°	0000	98	11	10	02	1	1021.6	1	03	83.8	75.0	78.8	6	6	3	5	0	6	10	X	1
7/21 27.7°	173.6°	0600	99	11	10	02	2	1020.8	5	02	77.9	72.0	78.6	8	2	2	5	1	2	11	X	1
7/21 27.8°	174.4°	1200	98	11	10	02	2	1021.7	7	01	78.0	71.5	78.2	8	X	X	X	X	11	X	1	1
7/21 28.0°	175.6°	1800	99	07	10	02	2	1021.2	2	05	77.9	74.5	77.9	4	4	3	5	0	1	10	X	1
7/21 28.2°	176.1°	2300	99	11	10	02	1	1022.1	4	00	78.4	72.5	79.7	7	1	2	5	3	6	11	X	1
Stopped at Midway																						
7/24 28.7°	178.1°	1200	98	13	09	25	6	1020.3	6	05	78.1	73.5	79.7	2	2	3	5	X	X	49	X	1
7/24 29.4°	179.1°	1800	98	16	10	14	2	1020.1	2	01	76.4	72.0	78.2	7	3	3	4	6	8	16	X	0
7/25 30.1°	179.0°	0000	99	13	05	01	1	1020.5	7	03	77.1	72.3	78.3	2	1	3	5	4	0	13	X	0
7/25 30.1°	180.1°	0600	99	17	11	01	1	1019.3	3	07	78.2	73.7	79.3	2	1	3	5	4	0	14	X	0
7/25 30.6°	180.0°	1200	99	14	12	02	1	1020.0	0	00	78.0	73.8	79.0	1	1	1	5	0	0	XX	X	X
7/25 31.7°	179.9°	1800	99	19	09	02	0	1018.6	5	02	77.2	72.8	78.2	2	1	2	5	0	8	18	X	0
7/26 32.3°	180.0°	0000	99	23	15	02	2	1017.9	8	07	77.8	73.5	78.5	5	4	2	5	8	1	22	X	0
7/26 33.2°	180.0°	0600	99	22	10	25	2	1015.8	0	00	76.0	73.0	76.6	8	7	2	5	8	X	XX	X	X
7/26 33.6°	180.0°	1200	98	24	11	02	2	1015.0	6	07	75.1	74.0	74.2	X	X	X	X	X	XX	X	X	X
Stopped at Midway																						
7/26 34.7°	180.0°	1800	98	21	11	60	5	1013.0	4	00	73.8	72.8	72.6	8	8	7	4	X	X	30	3	1
7/27 35.9°	180.0°	0600	93	22	25	65	6	1007.5	7	20	71.5	70.5	70.7	9	9	X	0	X	X	22	X	6
7/27 36.9°	180.0°	1200	97	28	12	01	6	1008.0	2	20	71.0	68.9	69.5	X	X	X	X	X	XX	X	X	4
7/27 37.2°	179.8°	1800	97	23	09	02	2	1010.0	2	15	70.6	69.5	69.3	8	8	7	4	X	X	28	4	4
7/28 38.3°	179.8°	0000	97	19	17	50	2	1010.1	8	07	71.8	71.2	69.9	8	8	7	4	X	X	21	4	3
7/28 39.0°	179.8°	0600	97	24	14	02	2	1010.3	3	10	71.4	69.9	69.0	8	8	5	4	X	X	23	X	3
7/28 39.8°	179.9°	1200	XX	20	17	02	2	1012.0	1	05	69.4	68.3	67.2	8	X	X	X	X	X	20	X	3
7/28 40.3°	179.9°	1800	98	21	18	50	2	1014.8	2	34	68.6	67.9	66.3	8	8	7	4	X	X	21	4	3
7/29 41.0°	179.9°	0000	94	22	18	10	4	1014.6	6	07	69.9	68.6	64.0	9	9	X	0	X	X	20	4	3
7/29 41.8°	179.8°	0600	94	22	24	21	4	1014.4	3	10	66.4	65.5	62.0	9	9	X	0	X	X	22	4	6

Supplement.—Log of ship's weather observations, HMS Gr. 30, July 16 - September 1, 1955.  
Results in International Ship Weather Code, January 1, 1955 (cont'd)

Date 1955	Latitude N.	Longitude W.	Time GCT	Visibility	Wind		Weather		Pressure		Temperature			Clouds					Waves				
					Direction	Speed (kt.)	Present	Past	Bar. corr. (mb.)	Characteristic	Amt. change	Dry bulb (°F.)	Wet bulb (°F.)	Sea water (°F.)	Total amt.	Amt. low	Type low	Ht. low	Type middle	Type high	Direction	Period	Height
7/29	42.5°	179.8°	1200	XX	18	17	45	4	1017.0	1	06	65.0	64.5	61.6	X	X	X	X	X	X	18	X	5
7/29	43.3°	179.9°	1800	95	22	25	63	6	1018.3	2	14	63.8	63.8	60.0	9	9	X	0	X	X	18	4	5
7/30	44.4°	179.9°	0100	94	21	15	28	4	1020.3	2	05	59.5	57.6	55.0	9	9	X	0	X	X	17	4	3
7/30	44.9°	179.8°	0600	94	21	09	28	4	1022.6	2	14	58.1	56.8	55.2	X	X	X	X	X	X	17	4	3
7/30	45.5°	179.8°	1200	97	18	02	01	4	1023.9	2	03	57.0	56.0	55.0	8	X	X	X	X	X	18	X	3
7/30	46.1°	179.9°	1800	93	30	08	50	4	1025.5	2	09	55.0	54.9	52.7	9	9	X	0	X	X	17	5	3
7/31	47.1°	179.7°	0000	93	36	05	50	4	1027.9	4	00	57.4	55.3	54.3	9	9	X	0	X	X	17	5	2
7/31	47.8°	179.7°	0600	99	36	06	01	1	1027.3	1	01	58.1	54.1	52.1	4	2	5	7	3	0	49	X	0
7/31	49.5°	178.0°	1800	98	20	08	02	2	1031.8	2	07	51.2	48.5	48.9	8	8	6	5	X	X	24	5	1
8/1	49.6°	178.0°	0000	98	19	09	02	2	1032.1	0	00	55.0	50.2	48.9	7	7	6	6	0	0	49	X	0
8/1	49.5°	178.3°	0600	98	00	00	02	2	1032.0	0	00	51.2	48.5	49.6	8	8	6	6	X	X	19	5	1
8/1	49.5°	177.3°	1200	98	06	07	02	2	1031.4	7	14	50.0	48.0	49.4	8	8	X	X	X	X	49	X	X
8/1	49.5°	176.2°	1800	94	06	17	28	4	1029.8	7	12	50.5	50.1	49.8	9	9	X	0	X	X	49	X	0
8/2	49.5°	174.9°	0000	93	20	13	28	4	1029.6	7	07	51.8	51.8	49.7	9	9	X	0	X	X	49	X	0
8/2	49.5°	173.6°	0600	93	19	19	28	4	1028.8	0	00	53.0	52.5	50.0	9	9	X	0	X	X	19	3	3
8/2	49.5°	172.5°	1200	98	24	16	01	2	1028.8	6	07	53.0	52.4	49.6	7	7	6	6	0	0	21	3	2
8/2	48.9°	172.4°	1800	96	26	17	21	1	1027.9	4	00	54.7	54.0	50.6	9	9	X	0	X	X	02	2	2
8/3	48.1°	172.5°	0000	93	24	19	45	4	1028.7	4	00	50.4	50.4	51.9	9	9	X	0	X	X	24	3	3
8/3	47.5°	172.5°	0600	93	24	17	45	4	1028.8	4	00	51.3	50.9	53.2	9	9	X	0	X	X	19	3	3
8/3	46.1°	172.5°	1800	97	26	21	10	4	1028.6	2	07	60.7	59.6	57.8	8	8	6	X	X	X	26	2	3
8/4	45.3°	172.5°	0000	93	22	21	02	4	1029.8	4	00	59.8	62.3	60.8	9	9	X	0	X	X	22	2	2
8/4	45.0°	172.5°	0600	97	26	16	01	2	1027.0	7	07	63.8	61.7	60.9	7	7	6	6	0	0	27	2	2
8/4	44.1°	172.4°	1200	98	32	16	01	2	1028.6	4	00	64.0	63.1	62.2	4	4	6	6	4	0	28	2	1
8/4	46.0°	172.5°	1800	99	28	17	01	2	1028.4	2	03	66.0	63.2	63.9	6	1	5	7	8	28	2	2	
8/5	45.5°	172.5°	0000	99	30	17	02	2	1028.8	8	05	70.0	65.4	69.9	7	6	4	5	1	0	30	2	2
8/5	44.5°	172.3°	0600	98	01	22	03	2	1029.0	2	03	69.8	65.7	70.6	8	8	6	4	X	X	35	2	2
8/5	40.8°	172.5°	1200	97	01	15	01	2	1028.6	7	07	72.2	66.4	71.7	7	7	6	4	X	X	36	2	1
8/5	43.4°	172.3°	1800	99	36	18	02	2	1028.3	3	05	69.0	64.8	71.8	7	6	4	4	7	0	36	2	2
8/6	42.4°	172.2°	0000	99	36	04	03	2	1027.0	2	05	72.2	67.5	71.1	8	8	7	4	X	X	36	2	2
8/6	38.7°	172.5°	0600	98	00	00	50	5	1026.4	5	00	70.4	67.8	71.9	8	8	7	4	X	X	36	2	2
8/6	38.5°	172.5°	1200	98	06	07	50	5	1025.2	7	14	72.0	68.7	72.3	8	8	7	4	X	X	XX	X	X
8/6	37.0°	172.5°	1800	97	08	08	51	5	1024.0	3	02	70.0	68.8	72.2	8	8	5	X	X	X	08	2	3
8/7	39.2°	172.6°	0000	99	14	08	01	1	1024.1	8	02	73.1	69.2	73.1	3	3	1	5	0	0	14	2	1
8/7	35.4°	172.5°	0600	99	11	17	02	0	1023.5	4	00	74.8	70.8	74.5	2	2	1	5	0	0	11	2	3
8/7	34.6°	172.6°	1200	99	15	16	02	0	1025.0	2	10	75.0	70.7	74.3	2	2	1	5	0	0	15	2	2
8/7	37.4°	172.5°	1800	99	14	11	81	0	1025.6	3	04	75.0	71.0	74.6	4	3	2	5	1	2	14	2	3
8/8	36.1°	172.5°	0000	99	15	18	03	1	1025.6	0	00	77.1	72.3	76.2	7	5	5	4	2	0	15	2	3
8/8	32.0°	172.4°	0600	98	14	14	6	1025.1	3	03	76.2	73.0	76.2	7	5	2	4	2	9	15	2	3	
8/8	31.4°	172.4°	1200	99	14	18	25	8	1025.6	4	00	76.0	71.0	76.7	7	3	2	X	1	0	14	2	3
8/8	33.7°	172.5°	1800	98	12	22	14	1	1025.0	3	06	77.3	71.9	77.1	3	3	2	5	0	0	12	2	5

Supplement.--Log of ship's weather observations, HMS Cr. 30, July 16 - September 1, 1955.  
Results in International Ship Weather Code, January 1, 1955 (cont'd)

Date 1955	Latitude N.	Longitude W.	Time GMT	Visibility	Wind		Weather		Pressure		Temperature			Clouds					Waves				
					Direction	Speed (kt.)	Present	Past	Bar. corr. (mb.)	Characteristic	Amt. change	Dry bulb (°F.)	Wet bulb (°F.)	Sea water (°F.)	Total amt.	Amt. low	Type low	Ht. low	Type middle	Type high	Direction	Period	Height
8/9	32.7°	172.4°	0000	99	18	16	02	0	1025.3	4	00	78.5	72.3	77.4	2	1	1	5	0	1	10	2	2
8/9	31.3°	172.0°	0600	99	09	16	02	0	1024.1	5	00	77.4	71.8	77.4	2	2	1	5	0	1	08	2	2
8/9	30.1°	171.2°	1200	99	09	16	02	0	1025.0	2	07	77.0	71.5	76.9	2	1	1	5	0	8	08	2	2
8/9	30.0°	170.7°	1700	99	09	16	02	0	1023.4	5	00	76.9	71.2	76.2	3	1	1	5	1	6	09	3	3
8/10	30.0°	169.7°	0000	99	09	14	15	2	1024.0	8	06	76.8	68.7	77.6	7	1	2	5	1	7	09	3	3
8/10	30.0°	168.5°	0600	99	09	14	02	0	1023.4	2	03	77.1	72.0	76.8	4	3	2	5	0	7	09	3	3
8/10	30.0°	168.1°	1100	99	08	10	02	0	1024.1	4	00	77.0	71.5	76.9	8	X	X	X	X	0	09	3	3
8/10	29.8°	167.4°	1800	99	17	04	03	2	1023.7	3	03	74.2	68.7	77.2	7	7	6	5	0	0	10	4	2
8/11	29.8°	166.2°	0000	99	09	15	01	1	1024.0	6	02	79.2	70.8	77.2	5	4	6	4	1	8	09	4	3
8/11	30.0°	165.2°	0600	99	09	16	01	0	1023.9	3	02	79.0	69.8	76.1	3	2	6	5	1	8	09	4	3
8/11	30.0°	165.0°	1200	99	10	15	01	0	1025.2	2	10	75.9	70.6	76.2	2	2	2	5	0	0	10	3	2
8/11	31.0°	164.7°	1800	99	08	13	02	0	1025.4	2	05	76.5	70.2	75.8	7	7	4	4	0	1	10	3	2
8/12	31.9°	164.7°	0000	99	09	13	02	0	1025.0	0	00	75.9	70.0	76.6	4	2	4	3	0	1	09	3	1
8/12	32.7°	165.0°	0600	99	11	09	02	0	1025.8	0	00	76.2	70.5	76.0	4	3	4	3	0	1	11	3	1
8/12	33.0°	165.0°	1200	99	11	16	02	0	1026.5	6	03	74.8	69.7	75.7	1	1	1	4	0	0	11	3	2
8/12	31.0°	164.8°	1800	99	11	14	01	1	1025.8	3	07	75.0	68.5	75.1	2	1	2	5	3	8	11	2	2
8/13	35.7°	164.9°	0600	99	15	09	03	1	1024.2	7	10	76.5	70.0	76.1	8	6	1	4	3	8	15	3	2
8/13	36.4°	165.0°	1200	98	13	13	25	5	1023.6	8	14	77.4	77.1	75.0	X	X	X	X	X	X	11	2	1
8/13	34.0°	164.8°	1700	99	16	17	02	2	1023.4	1	07	76.5	71.5	73.5	6	6	8	4	0	0	14	2	1
8/14	34.8°	164.7°	0000	98	20	16	25	8	1024.1	0	00	73.5	68.7	73.6	7	6	2	4	1	0	20	2	3
8/14	38.9°	165.0°	0600	99	12	21	03	2	1025.0	2	07	75.0	71.2	73.8	7	6	6	5	2	0	13	2	3
8/14	39.6°	165.0°	1100	99	18	22	02	2	1026.5	2	07	76.5	72.6	73.5	X	X	X	X	X	X	13	2	3
8/14	37.5°	165.0°	1800	98	15	18	03	1	1028.4	2	19	73.1	70.3	71.7	5	1	2	X	0	5	21	3	4
8/15	38.3°	164.9°	0000	98	15	15	02	2	1029.4	2	02	76.8	71.9	71.9	6	0	0	9	1	6	20	3	3
8/15	42.0°	164.9°	0600	99	16	15	02	0	1030.4	2	07	72.5	70.8	71.3	3	1	1	5	0	9	17	4	2
8/15	42.8°	165.0°	1200	99	22	11	02	0	1031.1	4	00	72.0	69.8	70.0	1	1	1	5	0	1	49	X	X
8/15	40.4°	165.0°	1800	98	20	13	02	2	1030.5	5	00	70.1	68.9	68.5	7	3	2	4	6	8	20	3	3
8/16	41.5°	165.0°	0000	97	27	13	41	1	1029.6	7	07	70.3	68.1	65.9	8	7	8	5	6	X	20	3	3
8/16	45.0°	165.0°	0600	96	23	15	25	6	1029.2	5	00	66.2	65.0	63.7	8	8	6	4	X	X	20	3	2
8/16	45.7°	165.0°	1100	XX	28	10	58	5	1027.9	7	20	65.9	65.9	61.9	X	X	X	X	X	X	20	3	2
8/17	44.5°	165.0°	0000	93	20	15	45	4	1023.8	7	14	59.6	59.0	57.5	9	9	X	0	X	X	20	3	2
8/17	47.6°	164.9°	0700	97	35	15	42	4	1021.4	0	02	54.5	53.8	54.8	8	8	6	X	X	X	49	X	2
8/17	48.1°	164.9°	1200	96	32	14	21	5	1022.6	2	14	53.5	51.0	53.8	8	8	6	X	X	X	XX	X	X
8/17	49.0°	165.0°	1800	99	02	12	02	2	1025.0	2	17	51.4	46.8	52.4	8	8	5	5	X	X	02	2	2
8/18	49.5°	164.8°	0000	98	36	09	02	2	1026.4	8	02	52.6	48.0	52.1	8	8	5	5	X	X	36	2	1
8/18	49.5°	163.7°	0600	98	33	09	02	2	1026.4	2	02	51.9	48.1	51.4	8	8	5	5	X	X	33	2	1
8/18	49.5°	162.5°	1200	98	31	12	02	2	1026.7	8	07	50.5	48.0	51.3	8	8	5	5	X	X	32	2	2
8/18	49.7°	161.5°	1800	99	32	14	02	2	1026.3	4	00	52.6	49.8	51.8	8	8	5	4	X	X	32	3	2
8/19	49.6°	158.4°	0600	99	36	13	02	2	1026.3	3	02	54.0	50.0	52.7	8	8	X	X	X	X	34	2	2
8/19	49.5°	157.5°	1200	98	28	09	02	2	1027.0	1	03	51.6	48.5	52.7	8	8	6	5	X	X	XX	X	X

Supplement.--Log of ship's weather observations, HMS Cr. 30, July 16 - September 1, 1955.  
Results in International Ship Weather Code, January 1, 1955 (cont'd)

Date 1955	Latitude N.	Longitude W.	Time GCT	V.isibility	Wind		Wea- ther	Pressure			Temperature			Clouds					Waves				
					Direction	Speed (kt.)		Present	Past	Bar. corr. (mb.)	Characteristic	Amt. change	Dry bulb (°F.)	Wet bulb (°F.)	Sea water (°F.)	Total amt.	Amt. low	Type low	Ht. low	Type middle	Type high	Direction	Period
8/19	48.7°	157.4°	1800	99	28	15	02	2	1027.5	2	10	51.8	49.0	52.9	8	8	6	5	X	X	29	2	1
8/20	47.6°	157.4°	0600	98	29	09	15	2	1029.2	2	07	55.0	51.9	55.6	8	8	5	4	X	X	29	2	1
8/20	46.5°	157.4°	1200	98	24	10	03	1	1029.6	2	03	59.6	54.8	57.4	8	8	5	X	X	X	28	2	2
8/20	46.1°	157.1°	1800	99	30	12	02	2	1028.3	4	00	58.5	54.9	58.0	8	8	5	4	X	X	28	2	1
8/21	45.2°	157.2°	0000	99	19	04	02	2	1029.6	8	03	62.6	54.2	61.9	5	2	1	5	2	1	32	5	1
8/21	44.6°	157.4°	0600	99	36	02	02	2	1028.8	2	03	60.2	55.0	61.1	8	X	X	X	X	X	34	5	1
8/21	44.0°	157.5°	1200	98	13	06	02	2	1028.9	8	10	61.4	56.3	62.1	5	X	X	X	X	X	13	2	1
8/21	43.3°	157.4°	1800	99	14	06	02	0	1029.0	1	07	64.7	58.2	65.6	1	1	1	5	0	1	11	3	1
8/22	42.3°	157.4°	0000	99	15	09	02	0	1027.0	7	14	66.5	61.0	68.8	1	1	1	5	0	1	XX	X	X
8/22	42.5°	157.4°	0600	99	17	12	01	1	1027.1	5	01	67.9	61.8	69.0	2	1	1	X	7	8	17	2	1
8/22	40.8°	157.4°	1200	99	20	08	03	1	1027.4	4	00	69.3	64.0	69.7	6	1	X	X	X	X	18	2	1
8/22	40.6°	157.5°	1800	99	18	08	03	1	1026.6	4	00	73.0	68.1	72.6	8	8	4	4	X	X	11	2	1
8/23	39.1°	157.5°	0000	99	15	03	02	0	1026.1	6	03	73.0	66.8	74.9	2	1	1	5	0	1	11	2	1
8/23	38.3°	157.5°	0600	99	13	07	02	0	1026.1	3	07	72.6	66.1	74.1	2	2	1	5	0	0	13	2	1
8/23	37.5°	157.5°	1200	99	12	11	02	0	1027.0	7	07	74.0	68.9	75.0	1	1	1	5	0	0	XX	X	X
8/23	36.9°	157.5°	1800	99	16	09	02	0	1027.6	2	14	76.0	69.0	76.1	1	1	1	5	0	0	14	2	1
8/24	36.0°	157.5°	0000	99	10	09	02	0	1028.6	8	03	74.8	69.0	75.9	2	2	1	5	0	0	10	2	1
8/24	35.3°	157.5°	0600	99	12	14	60	0	1028.0	4	00	76.0	68.2	75.9	3	3	7	5	0	0	10	2	2
8/24	34.5°	157.5°	1200	99	08	14	02	0	1028.1	7	07	75.0	68.9	75.4	1	1	2	5	0	1	XX	X	X
8/24	33.7°	157.5°	1800	99	10	21	02	2	1028.2	2	07	76.0	70.2	75.9	3	3	2	5	0	1	10	2	3
8/25	32.2°	157.5°	0600	99	14	19	02	2	1027.8	7	07	75.1	70.0	75.0	4	4	2	X	0	0	12	2	3
8/25	31.5°	157.5°	1200	99	11	16	02	0	1027.1	8	10	76.0	69.5	75.6	1	1	2	5	0	0	11	3	3
8/25	30.7°	157.5°	1800	99	16	10	60	1	1027.4	1	10	74.0	69.7	75.9	7	7	2	5	0	0	12	3	3
8/26	29.4°	157.5°	0600	99	10	20	03	0	1025.7	4	00	75.4	69.2	75.4	3	3	2	5	0	0	11	3	3
8/26	28.5°	157.5°	1200	99	10	20	02	0	1025.3	7	24	75.0	70.0	76.2	1	1	1	5	0	0	10	3	3
8/26	27.5°	157.5°	1800	99	08	19	14	0	1024.3	3	03	75.5	69.5	76.1	3	3	2	5	0	0	08	2	4
8/27	26.3°	157.5°	0600	99	07	19	14	0	1021.9	4	00	76.0	71.5	76.0	4	4	2	5	0	0	08	2	4
8/27	25.5°	157.5°	1200	99	07	17	02	0	1020.9	7	17	74.8	68.7	75.2	1	1	2	5	0	0	09	2	3
8/28	23.3°	157.5°	0600	99	08	24	16	0	1028.0	5	00	75.2	70.4	76.2	3	3	3	5	0	0	09	2	4
8/28	22.5°	157.5°	1200	99	07	14	25	8	1029.0	6	07	74.0	68.4	75.7	2	2	2	5	0	0	09	2	3

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